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Beck's Lake Site
South Bend, Indiana
Focused RI/FS ASAOC

UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
REGION 5

IN THE MATTER OF:
Beck's Lake Site
City of South Bend
St. Joseph County, Indiana

ADMINISTRATIVE SETTLEMENT
AGREEMENT AND ORDER ON
CONSENT FOR FOCUSED REMEDIAL
INVESTIGATION/FEASIBILITY
STUDY

Respondents:

Honeywell International Inc.
City of South Bend

U.S. EPA Region 5
CERCLA Docket No.

V-W-16-C-000

Proceeding Under Sections 104, 107 and
122 of the Comprehensive Environmental
Response, Compensation, and Liability
Act, as amended, 42 U.S.C. §§ 9604, 9607
and 9622.

ADMINISTRATIVE SETTLEMENT AGREEMENT AND ORDER ON CONSENT

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Appendix A STATEMENT OF WORK

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**ADMINISTRATIVE SETTLEMENT
AGREEMENT AND ORDER ON
CONSENT
FOR FOCUSED REMEDIAL INVESTIGATION/FEASIBILITY STUDY
OF THE LASALLE PARK AREA OF THE BECK'S LAKE SITE**

I. JURISDICTION AND GENERAL PROVISIONS

1. This Administrative Settlement Agreement and Order on Consent ("Settlement Agreement") is entered into voluntarily by the United States Environmental Protection Agency ("EPA") and Honeywell International Inc. and the City of South Bend, ("Respondents"). The Settlement Agreement provides for the performance of a focused remedial investigation and feasibility study ("Focused RI/FS") of the LaSalle Park Area ("LPA") of the Beck's Lake Site located near the intersection of Washington and Falcon Streets in South Bend, Indiana ("Site") and the reimbursement for future response costs incurred by EPA in connection with the Focused RI/FS.

2. This Settlement Agreement is issued under the authority vested in the President of the United States by Sections 104, 107 and 122 of the Comprehensive Environmental Response, Compensation, and Liability Act, as amended, 42 U.S.C. §§ 9604, 9607 and 9622 ("CERCLA"). This authority was delegated to the Administrator of EPA on January 23, 1987, by Executive Order 12580, 52 Fed. Reg. 2926 (Jan. 29, 1987), and further delegated to Regional Administrators on May 11, 1994, by EPA Delegation Nos. 14-14-C and 14-14-D. This authority was further redelegated by the Regional Administrator of EPA Region 5 to the Region 5 Superfund Division Director by EPA Delegation Nos. 14-14-C and 14-14-D on May 2, 1996.

3. In accordance with Sections 104(b)(2) and 122(j)(1) of CERCLA, 42 U.S.C. §§ 9604(b)(2) and 9622(j)(1), EPA notified the U.S. Department of Interior, the Indiana Department of Natural Resources and Indiana Department of Environmental Management on May 14, 2014, of negotiations with potentially responsible parties regarding the release or potential release of hazardous substances that may have resulted in injury to the natural resources under Federal and/or State trusteeship.

4. EPA and Respondents recognize that this Settlement Agreement has been negotiated in good faith and that the actions undertaken by Respondents in accordance with this Settlement Agreement do not constitute an admission of any liability. Respondents do not admit, and retain the right to controvert in any subsequent proceedings other than proceedings to implement or enforce this Settlement Agreement, the validity of the findings of fact, conclusions of law and determinations in Sections V and VI of this Settlement Agreement. Respondents agree to comply with and be bound by the terms of this Settlement Agreement and further agree that they will not contest the basis or validity of this Settlement Agreement or its terms.

II. PARTIES BOUND

5. This Settlement Agreement applies to and is binding upon EPA and upon Respondents and their successors and assigns. Any change in ownership or corporate status of a Respondent including, but not limited to, any transfer of assets or real or personal property shall not alter such Respondent's responsibilities under this Settlement Agreement.

6. Respondents are jointly and severally liable for carrying out all activities required by this Settlement Agreement. In the event of the insolvency or other failure of any one or more Respondents to implement the requirements of this Settlement Agreement, the remaining Respondent shall complete all such requirements.

7. Respondents shall ensure that their contractors, subcontractors, and representatives receive a copy of this Settlement Agreement and comply with this Settlement Agreement. Respondents shall be responsible for any noncompliance with this Settlement Agreement.

8. Each undersigned representative of Respondents certifies that he or she is fully authorized to enter into the terms and conditions of this Settlement Agreement and to execute and legally bind Respondents to this Settlement Agreement.

III. STATEMENT OF PURPOSE

9. In entering into this Settlement Agreement, the objectives of EPA and Respondents are: (a) to determine the nature and extent of any contamination and any threat to the public health, welfare, or the environment caused by the release or threatened release of hazardous substances, pollutants or contaminants at or within the boundaries of the LPA of the Site, by conducting a Focused Remedial Investigation in accordance with an EPA-approved Statement of Work ("SOW"); (b) to identify and evaluate remedial alternatives to prevent, mitigate or otherwise respond to or remedy any release or threatened release of hazardous substances, pollutants, or contaminants at or within the boundaries of the LPA of the Site, by conducting a Feasibility Study as more specifically set forth in the SOW; and (c) to recover Future Response Costs incurred by EPA with respect to this Settlement Agreement.

10. The Work conducted under this Settlement Agreement is subject to approval by EPA and shall provide all appropriate and necessary information to assess conditions within the LPA of the Site and evaluate alternatives to the extent necessary to select a remedy that will be consistent with CERCLA and the National Oil and Hazardous Substances Pollution Contingency Plan, 40 C.F.R. Part 300 ("NCP"). Respondents shall conduct all Work under this Settlement Agreement in compliance with CERCLA, the NCP, and all applicable EPA guidance, policies, and procedures.

IV. DEFINITIONS

11. Unless otherwise expressly provided herein, terms used in this Settlement Agreement that are defined in CERCLA or in regulations promulgated under CERCLA shall have the meaning assigned to them in CERCLA or in such regulations. Whenever terms listed below are used in this Settlement Agreement or in the appendices attached hereto and incorporated hereunder, the following definitions shall apply:

- a. "CERCLA" shall mean the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended, 42 U.S.C. §§ 9601, *et seq.*
- b. "Day" shall mean a calendar day. In computing any period of time under this Settlement Agreement, where the last day would fall on a Saturday, Sunday, or federal holiday, the period shall run until the close of business of the next working day.
- c. "Effective Date" shall be the effective date of this Settlement Agreement as provided in Section XXIX.
- d. "EPA" shall mean the United States Environmental Protection Agency and any successor departments or agencies of the United States.
- e. "IDEM" shall mean the Indiana Department of Environmental Management and any successor departments or agencies of the State.
- f. "Engineering Controls" shall mean constructed containment barriers or systems that control one or more of the following: downward migration, infiltration or seepage of surface runoff or rain; or natural leaching migration of contaminants through the subsurface over time. Examples include caps, engineered bottom barriers, immobilization processes, and vertical barriers.
- g. "Focused Remedial Investigation" shall mean a remedial investigation pursuant to the Statement of Work defined below that provides for the investigation of the LPA, but will not include any residential area surrounding the LPA.
- h. "Future Response Costs" shall mean all costs, including, but not limited to, direct and indirect costs, that the United States incurs in reviewing or developing plans, reports and other items pursuant to this Settlement Agreement, verifying the Work, or otherwise implementing, overseeing, or enforcing this Settlement Agreement, including but not limited to, payroll costs, contractor costs, travel costs, laboratory costs, Agency for Toxic Substances and Disease Registry ("ATSDR") costs, the costs incurred pursuant to Paragraph 71 (costs and attorneys fees and any monies paid to secure access, including the amount of just compensation), and Paragraph 57 (Emergency Response), and Paragraph 101 (Work Takeover).

i. "Institutional controls" shall mean non-engineered instruments, such as administrative and/or legal controls, that help to minimize the potential for human exposure to contamination and/or protect the integrity of a remedy by limiting land and/or resource use. Examples of institutional controls include easements and covenants, zoning restrictions, special building permit requirements, and well drilling prohibitions.

j. "Interest" shall mean interest at the rate specified for interest on investments of the EPA Hazardous Substance Superfund established by 26 U.S.C. § 9507, compounded annually, in accordance with 42 U.S.C. § 9607(a). The applicable rate of interest shall be the rate in effect at the time the interest accrues. The rate of interest is subject to change on October 1 of each year.

k. "LaSalle Park Area" or "LPA" shall mean the area of the Beck's Lake Site located in the vicinity north of Washington Street, south of Linden Avenue, east of Falcon Street, and west of Kaley Street in Portage Township of South Bend and any nearby areas where hazardous substances, pollutants or contaminants from the property or from former operations at the property may have been disposed, placed, moved around, managed or otherwise come to be located. The LPA includes, but may not be limited to, Beck's Lake, a sledding hill, soccer and baseball fields, basketball courts, and other recreational facilities. The LPA is generally depicted in the LPA Map which is included in the Statement of Work (Appendix A, Attachment 1). This initial, focused investigation is limited to the LPA and will not include any surrounding residential area.

l. "Municipal solid waste" or "MSW" shall mean waste material: (1) generated by a household (including a single or multifamily residence); or (2) generated by a commercial, industrial or institutional entity, to the extent that the waste material (i) is essentially the same as waste normally generated by a household; (ii) is collected and disposed of with other municipal solid waste as part of normal municipal solid waste collection services; and (iii) contains a relative quantity of hazardous substances no greater than the relative quantity of hazardous substances contained in waste material generated by a typical single-family household.

m. "NCP" shall mean the National Oil and Hazardous Substances Pollution Contingency Plan promulgated pursuant to Section 105 of CERCLA, 42 U.S.C. § 9605, codified at 40 C.F.R. Part 300, and any amendments thereto.

n. "Settlement Agreement" shall mean this Administrative Settlement Agreement and Order on Consent, the SOW, all appendices attached hereto (listed in Section XXVII) and all documents incorporated by reference into this document including without limitation EPA-approved submissions. EPA-approved submissions (other than progress reports) are incorporated into and become a part of the Settlement Agreement upon approval by EPA. In the event of conflict between this Settlement Agreement and any appendix or other incorporated documents, this Settlement Agreement shall control.

- o. "Paragraph" shall mean a portion of this Settlement Agreement identified by an Arabic numeral.
- p. "Parties" shall mean EPA and Respondents.
- q. "RCRA" shall mean the Resource Conservation and Recovery Act, also known as the Solid Waste Disposal Act, as amended, 42 U.S.C. §§ 6901, *et seq.*
- r. "Respondents" shall mean Honeywell International Inc. and the City of South Bend.
- s. "Section" shall mean a portion of this Settlement Agreement identified by a Roman numeral.
- t. "Site" shall mean the Beck's Lake Superfund Site, located near the intersection of Washington and Falcon Streets in South Bend, Indiana, and depicted generally on the map attached as Appendix B; and any nearby areas where hazardous substances, pollutants or contaminants, or contaminants from the property or from former disposal operations related to the property, have or may have come to be located.
- u. "State" shall mean the State of Indiana.
- v. "Statement of Work" or "SOW" shall mean the Statement of Work for development of a Focused RI/FS for the LPA of the Site, as set forth in Appendix A to this Settlement Agreement. The Statement of Work is incorporated into this Settlement Agreement and is an enforceable part of this Settlement Agreement as are any modifications made thereto in accordance with this Settlement Agreement.
- w. "Waste Material" shall mean (1) any "hazardous substance" under Section 101(14) of CERCLA, 42 U.S.C. § 9601(14); (2) any pollutant or contaminant under Section 101(33) of CERCLA, 42 U.S.C. § 9601(33); (3) any "solid waste" under Section 1004(27) of RCRA, 42 U.S.C. § 6903(27); and (4) any "hazardous material" under 329 Indiana Administrative Code 3.1-6.
- x. "Work" shall mean all activities Respondents are required to perform under this Settlement Agreement, except those required by Section XIV (Retention of Records).

V. FINDINGS OF FACT

12. The Beck's Lake Site is located approximately two miles west of downtown South Bend, Indiana. The nearly 45-acre site includes Beck's Lake, and a municipal park named LaSalle Park. The areas of the LPA of the Site that will be investigated by this Focused RI are bordered to the north by Linden Avenue, to the south by West Washington Street, to the west by North Falcon Street, and to the east by North Kaley Street.

13. Beck's Lake is an 8-acre lake located in the eastern portion of LaSalle Park and is surrounded by wetland vegetation. A prominent man-made hill, west of Beck's Lake, overlooks the lake (to the east) and the rest of the LaSalle Park (to the west and north). The Charles J. Black, Jr. Recreation Center is located on the southwest part of LaSalle Park with access to West Washington Street. The park also has a picnic shelter, tennis courts, basketball courts, volleyball courts, a baseball field, soccer fields and playground areas.

14. Single and multifamily residences, with some commercial and light industrial properties, surround LaSalle Park and Beck's Lake. Adjacent land to the north (across Linden Avenue) is wooded, followed by a quarry, followed by Conrail railroad tracks. To the east is a light industrial facility between LaSalle Park and North Kaley Street. To the south is residential property. Directly adjacent to LaSalle Park on the west across North Falcon Street is a residential complex called LaSalle Park Homes where arsenic and other contaminants have been identified. West of LaSalle Park Homes is a highly populated residential area.

15. The land comprising the site property was largely undeveloped in the early 1900s and LaSalle Lake appears on the western portion of a 1919 map of the area. A South Bend Tribune newspaper article dated June 16, 1933, reported that LaSalle Lake was once the source of the Kankakee River in St. Joseph County, Indiana but was drained for a City of South Bend sewer project. A 1938 aerial photograph captures a faint outline of the LaSalle Lake's footprint, which covered a large portion of the Site.

16. Between the 1930s and the 1950s, the Site was an open dump that accepted industrial and residential waste. The dumping is evident in the 1938 and 1951 aerial photographs that show that the dump area was located primarily within the Parcels IV and V in the western portion of the Site as identified in Appendix B Map. Road access to the dump area appears to have occurred through Parcels I and VI of the Site as identified in Appendix B Map. In the 1938 photograph, a road off of West Washington Street, north of Iowa Street, leads into an oval shaped area, believed to be the dump. The 1951 aerial photograph shows the dump area expanded to the north, encompassing almost the entire northwest quadrant of the site. In 1951, the dump area extended to the edge of the partial road which is now North Falcon Street.

17. Unpaved roads immediately west of North Falcon Street appear to lead to the western portion of the dump area. These roads traversed property where the LaSalle Park Homes housing development now resides. The aerial photographs dated 1951, 1957 and 1965 show housing units on Washington Street in Parcel I. The units were demolished around the mid- to late-1960s, when the City of South Bend acquired the parcel. In the 1960s, the City of South Bend acquired most of the site property and developed it into a city park named LaSalle Park.

18. Beginning in 1959, the City of South Bend began acquiring site property for the purpose of developing LaSalle Park. The city completed acquisition of park property in 1968. The park property consists of Parcels I - V as generally depicted in Appendix B Map. Aerial photographs indicate that Beck's Lake was dredged around the early 1960s. Prior to the 1960s-era development activities, the area where Beck's Lake resides today was wetland. Development in the area has reduced the wetland area to the present day size of Beck's Lake. Currently, Beck's Lake acts as a storm water retention pond.

19. The other site parcels, Parcels VI and VII, have been developed into public housing owned and operated by LaSalle Park Homes. Title documentation indicates LaSalle Park Homes was built after 1968, when LaSalle Park Homes, Inc. first acquired an interest in Parcel VI in the western portion of the site Property. The U.S. Department of Housing and Urban Development provided federal funds to construct the 150 apartments.

20. From approximately 1930 through 1996, Bendix and its successors operated a manufacturing facility located at 401 Bendix Drive, less than 0.5 miles northwest of the site. The facility manufactured aircraft landing gear, automotive brakes and steering components, and jet engine fuel controls.

21. On March 28, 1984, pursuant to Section 103(c) of CERCLA, Bendix notified EPA that it had generated, transported and disposed of hazardous substances, to an approximately 15-acre area surrounding, and including, Beck's Lake. In the notification, Bendix reported that it dumped wastes at the site "at some time during the past 40 years," ending in the mid-1950s. Bendix reported that the types of waste that may have been disposed include organic substances, inorganic substances, solvents, heavy metals, acids, bases, and asbestos. Additional correspondence from Bendix to EPA further indicated that Bendix may have disposed of paint wastes, hydroxide sludge, soluble oil and water mixtures, chromic acid, wastewater treatment sludge, nickel waste, solvents or naphtha, foundry sand, and cyanide waste at the Beck's Lake Site.

22. In April 1984, after EPA received the CERCLA 103(c) notice, the Beck's Lake Site was entered in the Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS).

23. On April 20, 1988, EPA conducted on-site soil and sediment sampling for a Screening Site Inspection (SSI). The SSI was conducted to determine whether certain hazardous substances were present at the site and to characterize the site more fully. The June 7, 1989 SSI report stated that there was a potential for hazardous substances to migrate from the site soils. The hazardous substances were detected in on-site soil samples above background levels, included fluoranthene, pyrene, chrysene, chromium, lead, and manganese.

24. On March 8, 1996, EPA conducted an Expanded Site Inspection (ESI) and the site was assigned a Hazardous Ranking Score (HRS) of 54.78. The score was based primarily on the potential of a groundwater release. However, no groundwater receptors appeared to exist within the groundwater flow pathway from the site and the site was designated No Further Remedial Action Planned and subsequently archived.

25. On October 16, 2001, the IDEM conducted sampling activities at the Site for a Brownfields Environmental Assessment (BEA). The purpose of the BEA was to evaluate whether the site would be suitable for redevelopment. The BEA report, dated November 14, 2002, stated that:

- Lead levels in one surface soil sample (784 parts per million [ppm]) and three sediment samples (405, 630 and 649 ppm) were above the Risk-Based Closure (RISC) Residential Direct Contact Level (400 ppm);
- Arsenic levels in 14 surface soil and sediment samples (ranging from 4.8 ppm and 20.9 ppm) were above the RISC Residential Default Closure Level (3.9 ppm). Additionally, arsenic (20.9 ppm) was detected in a surface soil sample above the RISC Industrial Default Closure Level (20 ppm); and
- Benzo(a)pyrene (BaP) levels in two sediment soils levels (800 and 710 ppm) were above the RISC Residential Default Closure Level (3.9 ppm).

26. Based on the results of the BEA and a reevaluation of health threats posed, the site was recommended for reentry into CERCLIS on April 1, 2004.

27. On June 16, 2003, IDEM conducted sampling activities for a Site Reassessment. The final Site Reassessment report was submitted March 9, 2007. A total of 22 surface soil samples were obtained from residential and public properties around the site. The following contaminants were identified:

- Arsenic was identified in residential areas at levels between 1.9 ppm and 32.9 ppm. Arsenic was detected at 3.5 ppm in the background sample. The benchmark used for comparison of other samples was 10.5 ppm (three times the background level). Seven samples exceeded 10.5 ppm, ranging from 10.7 ppm to 32.9 ppm.
- Lead was detected in all 22 samples at levels between 20.7 ppm and 306 ppm. Three samples were detected at concentrations three times higher than the highest background sample level (181.5 ppm).
- Chromium was detected in all 22 samples at levels ranging from 5.3 ppm to 152 ppm. Two samples were detected at concentrations exceeding three times the highest background sample level (64.8 ppm).

28. On October 5 and 6, 2009, IDEM collected sampling activities for an Expanded Site Inspection 2. IDEM collected a total of 40 surface and subsurface soil samples. The December 20, 2009, ESI 2 Report further documented the presence of hazardous substances. Arsenic was detected in concentrations ranging from 2.7 ppm to 32.6 ppm and six surface soil samples contained arsenic above three times the highest background level (23.7 ppm). Subsurface soil samples collected from borings where historical dumping occurred revealed arsenic levels ranging from 7 ppm to 24.5 ppm. Four subsurface soil samples contained lead in excess of 1,000 ppm. Lead levels above three times the highest background level were detected in one surface sample (665 ppm). Other constituents detected at levels three times above background levels include: zinc, barium, chromium, cadmium, copper, and silver.

29. On April 1, 2013, EPA submitted an HRS Documentation Record. Based on the results of the ESI 2 Report, the Site received an HRS score of 50.00

30. In June 2013, EPA's contractor, Weston Solutions, Inc., took 72 triplicate samples from 68 locations within the play area of the LPA, which included four soccer fields, one baseball field, four playgrounds, and a fishing spot on the edge of Beck's Lake. The

evaluation of the play areas was conducted to determine if there was any immediate risk to children playing in those specific areas. It was not intended as an evaluation of long-term exposure nor representative of the risk at the site as a whole. The samples were taken from the top 0-3 inches of surface soil and were analyzed for target analyte list (TAL) metals. In addition, 10 of these surface soil samples were analyzed for hexavalent chromium (CrVI). The results were summarized in a July 29, 2013 report titled "Becks' Lake Proposed National Priorities List (NPL) Superfund Site Assessment of Play Area Surface Soils at LaSalle Park."

The following conclusions were outlined in the July 29, 2013 report:

- The results of the analyses concluded that no TAL metals or Cr VI were detected at concentrations exceeding residential Removal Management Levels (RMLs), with the exception of arsenic from three samples from two triplicates (results were 40 mg/kg, 40 mg/kg and 46 mg/kg). The three samples that exceeded arsenic RMLs were located on the southwest playground which appeared to be associated with treated wood near a train set, and did not warrant an emergency or time critical removal response, as the wood was covered with pea gravel and presented no exposure to receptors.

An evaluation of the results outlined in the July 29, 2013 sampling report measured against the IDEM Remediation Closure Guide (RCG) 2015 Screening Levels¹ found the following:

- None of the surface soil samples had Arsenic levels above IDEM RCG Recreational Soil Direct Contact Screening levels for Community Park Soil Exposure (45 mg/kg) or for Commercial/Industrial Screening Levels for Soil Exposure (30mg/kg); Arsenic levels in 18 surface soil triplicate samples (ranging from 14 mg/kg to 24 mg/kg) that were analyzed using XRF technology, and 7 of the samples (ranging from 9.4 mg/kg to 14.9 mg/kg) that were analyzed using fixed lab analytical methods, were above 2015 IDEM RCG Screening Levels for Residential Soil Exposure (9.4 mg/kg); Note: The 3 arsenic outliers in the southwest playground area are not included in this summary.
- One of 10 samples analyzed using a fixed lab analytical method for CrVI had a reported concentration of 5J mg/kg, which is above IDEM RCG 2015 Screening Levels for Residential Soil Exposure (4.2 mg/kg);
- Mercury levels in four surface soil triplicate samples (ranging from 15 mg/kg to 22 mg/kg) that were analyzed using XRF technology were above IDEM RCG 2015 Screening Levels for Residential and Commercial/Industrial Soil Exposure (both set at 3.1 mg/kg). None of the surface samples that were analyzed using fixed analytical methods had Mercury levels reported above the IDEM RCG 2015 Screening Levels for Residential and/or Commercial/Industrial Soil Exposure (3.1 mg/kg).

¹ The 2015 IDEM RCG is an IDEM non-rule policy document that sets forth the general target range of concentrations that may be acceptable at a site when a PRP does not intend to conduct a site-specific risk assessment. The RCG screening values are calculated based on a 10-5 risk level, derived from the EPA Regional Screening Levels. The screening values are intended to be used to compare to investigations conducted under the RCG, which has guidelines regarding how to create CSMS and how to choose exposure point concentrations. Comparison with RCG values is an acceptable general screening tool for use at NPL sites, but does not substitute for remedial investigations and risk assessments conducted under the NCP.

31. The Beck's Lake Site was listed on the National Priorities List ("NPL") pursuant to CERCLA Section 105, 42 U.S.C. § 9605, on December 12, 2013.

32. The Respondents are Honeywell International Inc., a Delaware corporation and corporate successor to Bendix's liability, which generated and arranged for transportation to and disposal of hazardous substances at the Site and the City of South Bend, Indiana, the current owner of the Site.

VI. CONCLUSIONS OF LAW AND DETERMINATIONS

Based on the Findings of Fact set forth above, EPA has determined that:

33. The Beck's Lake Site is a "facility" as defined in Section 101(9) of CERCLA, 42 U.S.C. § 9601(9).

34. The contamination found at the Site, as identified in the Findings of Fact above, includes "hazardous substances" as defined in Section 101(14) of CERCLA, 42 U.S.C. § 9601(14).

35. The conditions described in the Findings of Fact above constitute an actual and/or threatened "release" of a hazardous substance from the facility as defined in Section 101(22) of CERCLA, 42 U.S.C. § 9601(22).

36. Each Respondent is a "person" as defined in Section 101(21) of CERCLA, 42 U.S.C. § 9601(21).

37. Respondents are responsible parties under Sections 104, 107 and 122 of CERCLA, 42 U.S.C. §§ 9604, 9607 and 9622.

a. Respondent Honeywell International Inc. is a person who generated the hazardous substances found at the Site and/or is a person who arranged for disposal or transport for disposal of hazardous substances at the Site; is a person who at the time of disposal of any hazardous substances owned or operated the Site, or is a person who arranged for disposal or transport for disposal of hazardous substances at the Site. Respondent Honeywell International Inc. therefore may be liable under Section 107(a) of CERCLA, 42 U.S.C. § 9607(a).

b. Respondent City of South Bend is the current "owner" of the facility, as defined by Section 101(20) of CERCLA, 42 U.S.C. § 9601(20), and within the meaning of Section 107(a)(1) of CERCLA, 42 U.S.C. § 9607(a)(1).

c. Respondent City of South Bend is the former "owner" of the facility at the time of disposal of hazardous substances at the facility, as defined by Section 101(20) of CERCLA, 42 U.S.C. § 9601(20), and within the meaning of Section 107(a)(2) of CERCLA, 42 U.S.C. § 9607(a)(2).

38. The actions required by this Settlement Agreement are necessary to protect the public health, welfare or the environment, are in the public interest, 42 U.S.C. § 9622(a), are consistent with CERCLA and the NCP, 42 U.S.C. §§ 9604(a)(1), 9622(a), and will expedite effective remedial action and minimize litigation, 42 U.S.C. § 9622(a).

39. EPA has determined that Respondents are qualified to conduct the Focused RI/FS within the meaning of Section 104(a) of CERCLA, 42 U.S.C. § 9604(a), and will carry out the Work properly and promptly, in accordance with Sections 104(a) and 122(a) of CERCLA, 42 U.S.C. §§ 9604(a) and 9622(a), if Respondents comply with the terms of this Settlement Agreement.

VII. SETTLEMENT AGREEMENT AND ORDER

40. Based upon the foregoing Findings of Fact and Conclusions of Law and Determinations, it is hereby Ordered and Agreed that Respondents shall comply with all provisions of this Settlement Agreement, including, but not limited to, all appendices to this Settlement Agreement and all documents incorporated by reference into this Settlement Agreement.

VIII. DESIGNATION OF CONTRACTORS AND PROJECT COORDINATORS

41. Selection of Contractors, Personnel. All Work performed under this Settlement Agreement shall be under the direction and supervision of qualified personnel. Within 60 days of the Effective Date of this Settlement Agreement, and before the Work outlined below begins, Respondents shall notify EPA in writing of the names, titles, and qualifications of the personnel, including contractors, subcontractors, consultants and laboratories to be used in carrying out such Work. With respect to any proposed contractor, Respondents shall demonstrate that the proposed contractor has a quality system which complies with ANSI/ASQC E4-1994, "Specifications and Guidelines for Quality Systems for Environmental Data Collection and Environmental Technology Programs," (American National Standard, January 5, 1995, or most recent version), by submitting a copy of the proposed contractor's Quality Management Plan ("QMP"). The QMP should be prepared in accordance with "EPA Requirements for Quality Management Plans (QA/R-2)," (EPA/240/B- 01/002, March 2001 or subsequently issued guidance) or equivalent documentation as determined by EPA. The qualifications of the persons undertaking the Work for Respondents shall be subject to EPA's review, for verification that such persons meet minimum technical background and experience requirements. This Settlement Agreement is contingent on Respondents' demonstration to EPA's satisfaction that Respondents are qualified to perform properly and promptly the actions set forth in this Settlement Agreement. If EPA disapproves in writing of any person's technical qualifications, Respondents shall notify EPA of the identity and qualifications of the replacements within 30 days of the written notice. If EPA subsequently disapproves of the replacement, EPA reserves the right to terminate this Settlement Agreement and to conduct a RI/FS, and to seek reimbursement for costs and penalties from Respondents. During the course of the Focused RI/FS, Respondents shall notify EPA in writing of any changes or additions in the personnel used to carry out such Work, providing their names, titles, and qualifications. EPA shall have

same right to disapprove changes and additions to personnel as it has hereunder regarding the initial notification.

42. Within 10 days after the Effective Date, Respondents shall designate a Project Coordinator who shall be responsible for administration of all actions by Respondents required by this Settlement Agreement and shall submit to EPA the designated Project Coordinator's name, address, telephone number, and qualifications. To the greatest extent possible, the Project Coordinator shall be present on Site or readily available during Site Work. EPA retains the right to disapprove of the designated Project Coordinator. If EPA disapproves of the designated Project Coordinator, Respondents shall retain a different Project Coordinator and shall notify EPA of that person's name, address, telephone number and qualifications within 15 days following EPA's disapproval. Respondents shall have the right to change their Project Coordinator, subject to EPA's right to disapprove. Respondents shall notify EPA 5 days before such a change is made. The initial notification may be made orally, but shall be promptly followed by a written notification. Receipt by Respondents' Project Coordinator of any notice or communication from EPA relating to this Settlement Agreement shall constitute receipt by Respondents.

43. EPA has designated Jenny Davison of the Remedial Response Branch #2, as its Remedial Project Manager. EPA will notify Respondents of a change of its designated Remedial Project Manager. Except as otherwise provided in this Settlement Agreement, Respondents shall direct all submissions required by this Settlement Agreement to the Remedial Project Manager at U.S. EPA Region 5, Superfund Division, Mail Code SR-6J, 77 W. Jackson Blvd, Chicago, IL 60604.

44. EPA's Project Coordinator shall have the authority lawfully vested in a Remedial Project Manager ("RPM") and On-Scene Coordinator ("OSC") by the NCP. In addition, EPA's Project Coordinator shall have the authority consistent with the NCP, to halt any Work required by this Settlement Agreement, and to take any necessary response action when s/he determines that conditions at the Site may present an immediate endangerment to public health or welfare or the environment. The absence of the EPA Project Coordinator from the area under study pursuant to this Settlement Agreement shall not be cause for the stoppage or delay of Work.

45. EPA shall arrange for a qualified person to assist in its oversight and review of the conduct of the Focused RI/FS, as required by Section 104(a) of CERCLA, 42 U.S.C. Section 9604(a). Such person shall have the authority to observe Work and make inquiries in the absence of EPA, but not to modify the Focused RI/FS Work Plan.

IX. WORK TO BE PERFORMED

46. Respondents shall conduct the Focused RI/FS limited to the former areas of waste management and disposal at LaSalle Park including Beck's Lake, the Sledding Hill, and the LaSalle Park itself, in accordance with the provisions of this Settlement Agreement, the SOW, CERCLA, the NCP and EPA guidance, including, but not limited to the "Interim Final Guidance for Conducting Remedial Investigations and Feasibility Studies under CERCLA" (OSWER

Directive # 9355.3-01, October 1988 or subsequently issued guidance), "Guidance for Data Usability in Risk Assessment" (OSWER Directive #9285.7-05, October 1990 or subsequently issued guidance), and guidance referenced therein, and guidance referenced in the SOW, as may be amended or modified by EPA. The Focused RI shall consist of collecting data to characterize site conditions within the LPA, determining the nature and extent of the contamination at and within the LPA of the Site, assessing risk to human health and the environment and conducting treatability testing as necessary to evaluate the potential performance and cost of the treatment technologies that are being considered. The Focused Feasibility Study ("FS") shall determine and evaluate (based on treatability testing, where appropriate) alternatives for remedial action to prevent, mitigate or otherwise respond to or remedy the release or threatened release of hazardous substances, pollutants, or contaminants at or from the former areas of waste placement, movement, management and disposal at the LPA. The alternatives evaluated must include, but shall not be limited to, the range of alternatives described in the NCP, and shall include remedial actions that utilize permanent solutions and alternative treatment technologies or resource recovery technologies to the maximum extent practicable. In evaluating the alternatives, Respondents shall address the factors required to be taken into account by Section 121 of CERCLA, 42 U.S.C. § 9621, and Section 300.430(e) of the NCP, 40 C.F.R. § 300.430(e).

47. Respondents shall submit all deliverables to EPA in electronic form. If any deliverable includes maps, drawings, or other exhibits that are larger than 8.5" by 11", Respondents shall also provide EPA with paper copies of such exhibits.

48. Technical Specifications for Deliverables. Sampling and monitoring data should be submitted in standard regional Electronic Data Deliverable (EDD) format. Other delivery methods may be allowed if electronic direct submission presents a significant burden or as technology changes.

49. Spatial data, including spatially-referenced data and geospatial data, should be submitted (1) in the ESRI File Geodatabase format; and as unprojected geographic coordinates in decimal degree format using North American Datum (1983) (NAD83) or World Geodetic System 1984 (WGS84) as the datum. Projected coordinates may optionally be included but must be documented. Spatial data should be accompanied by metadata, and such metadata should be compliant with the Federal Geographic Data Committee (FGDC) Content Standard for Digital Geospatial Metadata and its EPA profile, the EPA Geospatial Metadata Technical Specification. An add-on metadata editor for ESRI software, the EPA Metadata Editor (EME), complies with these FGDC and EPA metadata requirements and is available at <https://edg.epa.gov/EME/>.

50. Each file must include an attribute name for each site unit or sub-unit submitted. Consult: <http://www2.epa.gov/geospatial/geospatial-policies-and-standards> for any further available guidance on attribute identification. Spatial data submitted by Respondents does not, and is not intended to, define the boundaries of the Site.

51. The activities, plans, reports and other deliverables identified below shall be developed as provided in the Focused RI/FS Work Plan and Sampling and Analysis Plan, and shall be submitted to EPA as provided. All Work performed under this Settlement Agreement shall be in accordance with the schedules herein, and in full accordance with the standards, specifications,

and other requirements of the Focused RI/FS Work Plan and Sampling and Analysis Plan, as initially approved or modified by EPA, and as may be amended or modified by EPA from time to time. In accordance with the schedules established in this Settlement Agreement, Respondents shall submit to EPA and the State two copies of all plans, reports and other deliverables required under this Settlement Agreement, and the Focused RI/FS Work Plan. All plans, reports and other deliverables will be reviewed and approved by EPA pursuant to Section X (EPA Approval of Plans and Other Submissions). Upon EPA's request, Respondents shall also provide copies of plans, reports or other deliverables to Community Advisory Groups, Technical Assistance Grant recipients or any other entities as directed by EPA. Upon request by EPA, Respondents shall submit in electronic form all portions of any plan, report or other deliverable Respondents are required to submit pursuant to provisions of this Settlement Agreement.

a. Scoping. EPA will determine the Site-specific objectives of the Focused RI/FS of the LPA and devise a general management approach for the Site. Respondents shall conduct the remainder of scoping activities and referenced guidances. At the conclusion of the project planning phase, Respondents shall provide EPA with the following plans, reports and other deliverables:

i. Focused RI/FS Work Plan for the LPA. Within 90 days after the Effective Date of this Settlement Agreement, Respondents shall submit to EPA a complete Focused RI/FS Work Plan for the LPA. Upon its approval by EPA pursuant to Section X (EPA Approval of Plans and Other Submissions), the Focused RI/FS Work Plan shall be incorporated into and become enforceable under this Settlement Agreement.

ii. Sampling and Analysis Plan. Within 90 days after the Effective Date, Respondents shall submit a Focused Sampling and Analysis Plan for the LPA to EPA for review and approval pursuant to Section X (EPA Approval of Plans and Other Submissions). This plan shall consist of a Field Sampling Plan ("FSP") and a Quality Assurance Project Plan ("QAPP"), as described in the Statement of Work and guidances, including, without limitation, "EPA Guidance for Quality Assurance Project Plans (QA/G-5)" (EPA/600/R-02/009, December 2002 or subsequently issued guidance), and "EPA Requirements for Quality Assurance Project Plans (QA/R-5)" (EPA 240/B-01/003, March 2001 or subsequently issued guidance). Upon its approval by EPA pursuant to Section X (EPA Approval of Plans and Other Submissions), the Sampling and Analysis Plan shall be incorporated into and become enforceable under this Settlement Agreement.

iii. Site Health and Safety Plan. Within 90 days after the Effective Date of this Settlement Agreement, Respondents shall submit for EPA review and comment a Site Health and Safety Plan that ensures the protection of on-site workers and the public during performance of on-site Work under this Settlement Agreement. This plan shall be prepared in accordance with EPA's Standard Operating Safety Guide (PUB 9285.1-03, PB 92-963414, June 1992 or subsequently issued guidance). In addition, the plan shall comply with all currently applicable Occupational Safety and Health Administration ("OSHA") regulations found at 29 C.F.R. Part 1910. If EPA determines that it is appropriate, the plan shall also include contingency planning.

Respondents shall incorporate all changes to the plan recommended by EPA and shall implement the plan during the pendency of the RI/FS.

b. Community Relations Plan. EPA will prepare a community relations plan, in accordance with EPA guidance and the NCP. As requested by EPA, Respondents shall provide information supporting EPA's community relations plan and shall participate in the preparation of such information for dissemination to the public and in public meetings which may be held or sponsored by EPA to explain activities at or concerning the Site.

c. Focused Characterization of the LPA at the Site. Following EPA approval or modification of the Focused RI/FS Work Plan and Sampling and Analysis Plan of the LPA at the Site, Respondents shall implement the provisions of these plans to characterize the former areas of waste placement, movement, management and disposal at LPA.

d. Respondents shall complete characterization of the LPA of the Site and submit all plans, reports and other deliverables in accordance with the schedules and deadlines established in this Settlement Agreement, and/or the EPA-approved Focused RI/FS Work Plan and Sampling and Analysis Plan.

e. Reuse Assessment. If EPA, in its sole discretion, determines that a Reuse Assessment is necessary, Respondents will perform the Reuse Assessment in accordance with the SOW, Focused RI/FS Work Plan and applicable guidance. The Reuse Assessment should provide sufficient information to develop realistic assumptions of the reasonably anticipated future uses for the LPA of the Site. Respondents shall prepare the Reuse Assessment in accordance with EPA guidance, including, but not limited to: "Reuse Assessments: A Tool to Implement the Superfund Land Use Directive," OSWER Directive 9355.7-06P, June 4, 2001 or subsequently issued guidance.

f. Baseline Human Health Risk Assessment and Ecological Risk Assessment. Respondents will perform the Baseline Human Health Risk Assessment and Ecological Risk Assessment ("Risk Assessments") in accordance with the SOW, Focused RI/FS Work Plan and applicable EPA guidance, including but not limited to: "Interim Final Risk Assessment Guidance for Superfund, Volume I - Human Health Evaluation Manual (Part A)," (RAGS, EPA-540-1-89-002, OSWER Directive 9285.7-01A, December 1989); "Interim Final Risk Assessment Guidance for Superfund, Volume I - Human Health Evaluation Manual (Part D, Standardized Planning, Reporting, and Review of Superfund Risk Assessments)," (RAGS, EPA 540-R-97-033, OSWER Directive 9285.7-01D, January 1998); "Ecological Risk Assessment Guidance for Superfund: Process for Designing and Conducting Ecological Risk Assessments" (ERAGS, EPA-540-R-97-006, OSWER Directive 9285.7-25, June 1997) or subsequently issued guidance.

g. Draft Focused Remedial Investigation of LPA Report. Within 90 days after EPA's approval of the Risk Assessments, Respondents shall submit to EPA for review and approval pursuant to Section X (EPA Approval of Plans and Other Submissions), a Draft Remedial Investigation Report consistent with the SOW, Focused RI/FS Work Plan, Focused Sampling and Analysis Plan. The Draft Focused RI Report shall also contain the Risk Assessments.

h. Treatability Studies. Respondents shall conduct treatability studies, except where Respondents can demonstrate to EPA's satisfaction that they are not needed. In accordance with the schedules or deadlines established in this Settlement Agreement, and/or the EPA-approved Focused RI/FS Work Plan, Respondents shall provide EPA with the following plans, reports, and other deliverables for review and approval pursuant to Section X (EPA Approval of Plans and Other Submissions):

i. Identification of Candidate Technologies Memorandum. This memorandum shall be submitted as specified by EPA or any other scheduling provision preferred by the Region.

ii. Treatability Testing Statement of Work. If EPA determines that treatability testing is required, within 30 days thereafter or longer period as specified by EPA, Respondents shall submit a Treatability Testing Statement of Work ("TTSOW").

iii. Treatability Testing Work Plan. Within 30 days after submission of the TTSOW, Respondents shall submit a Treatability Testing Work Plan, including a schedule.

iv. Treatability Study Sampling and Analysis Plan. Within 30 days after identification of the need for a separate or revised QAPP or FSP, Respondents shall submit a Treatability Study Sampling and Analysis Plan.

v. Treatability Study for the LPA of the Site Health and Safety Plan. Within 30 days after the identification of the need for a revised Health and Safety Plan, Respondents shall submit a Treatability Study Site Health and Safety Plan.

vi. Treatability Study Evaluation Report. Within 60 days after completion of any treatability testing, Respondents shall submit a treatability study evaluation report as provided in the Statement of Work and Work Plan.

i. Development and Screening of Alternatives. Respondents shall develop an appropriate range of waste management options that will be evaluated through the development and screening of alternatives, as provided in the Focused RI/FS Work Plan. In accordance with the schedules or deadlines established in this Settlement Agreement, the SOW and/or the EPA-approved Focused RI/FS Work Plan, Respondents shall provide EPA with the following deliverables for review and approval pursuant to Section X (EPA Approval of Plans and Other Submissions):

i. Memorandum on Remedial Action Objectives. The Memorandum on Remedial Action Objectives shall include remedial action objectives for Engineering Controls as well as for Institutional Controls.

ii. Memorandum on Development and Screening of Alternatives. The Memorandum shall summarize the development and screening of remedial alternatives.

j. **Detailed Analysis of Alternatives.** Respondents shall conduct a detailed analysis of remedial alternatives, as described in the Focused RI/FS Work Plan. In accordance with the deadlines or schedules established in this Settlement Agreement, and the EPA-approved Focused RI/FS Work Plan Respondents shall provide EPA with the following deliverables and presentation for review and approval pursuant to Section X (EPA Approval of Plans and Other Submissions):

i. **Report on Comparative Analysis and Presentation to EPA.** Within 60 days of EPA's approval of the draft Focused RI Report, Respondents will submit a report on comparative analysis to EPA. Within 60 days of submitting the report on comparative analysis, Respondents will present to EPA a summary of the findings of the remedial investigation and remedial action objectives, and present the results of the nine criteria evaluation and comparative analysis, as described in the SOW.

ii. **Alternatives Analysis for Institutional Controls and Screening.** Respondents shall submit a memorandum on the Institutional Controls identified in the Memorandum on Development and Screening of Alternatives as potential remedial actions. The Alternatives Analysis for Institutional Controls and Screening shall (1) state the objectives (i.e., what will be accomplished) for the Institutional Controls; (2) determine the specific types of Institutional Controls that can be used to meet the remedial action objectives; (3) investigate when the Institutional Controls need to be implemented and/or secured and how long they must be in place; (4) research, discuss and document any agreement with the proper entities (e.g., state, local government entities, local landowners, conservation organizations, Respondents) on exactly who will be responsible for securing, maintaining and enforcing the Institutional Controls. The Alternatives Analysis for Institutional Controls and Screening shall also evaluate the Institutional Controls identified in the Memorandum on Development and Screening of Alternatives against the nine evaluation criteria outlined in the NCP (40 C.F.R. 300.430(e)(9)(iii)) for CERCLA cleanups, including but not limited to costs to implement, monitor and/or enforce the Institutional Controls. The Alternatives Analysis for Institutional Controls and Screening shall be submitted as an appendix to the Draft Focused Feasibility Study Report.

iii. **Draft Focused Feasibility Study Report.** Within 60 days after the presentation to EPA described in Paragraph 51 j. (i), Respondents shall submit to EPA a Draft Focused Feasibility Study Report which reflects the findings in the Risk Assessments. Respondents shall refer to Table 6-5 of the RI/FS Guidance for report content and format. The report as amended, and the administrative record, shall provide the basis for the proposed plan under CERCLA Sections 113(k) and 117(a) by EPA, and shall document the development and analysis of remedial alternatives.

52. Upon receipt of the draft Focused FS of the LPA report, EPA will evaluate, as necessary, the estimates of the risk to the public and environment that are expected to remain after a particular remedial alternative has been completed and will evaluate the durability, reliability and effectiveness of any proposed Institutional Controls.

53. Modification of the Focused RI/FS Work Plan.

a. If at any time during the Focused RI/FS process, Respondents identify a need for additional data, Respondents shall submit a memorandum documenting the need for additional data to the EPA Project Coordinator within 10 days of identification. EPA in its discretion will determine whether the additional data will be collected by Respondents and whether it will be incorporated into plans, reports and other deliverables.

b. In the event of unanticipated or changed circumstances at the Site, Respondents shall notify the EPA Project Coordinator by telephone within 48 hours of discovery of the unanticipated or changed circumstances. In the event that EPA determines that the immediate threat or the unanticipated or changed circumstances warrant changes in the Focused RI/FS Work Plan, EPA shall modify or amend the Focused RI/FS Work Plan in writing accordingly. Respondents shall perform the Focused RI/FS Work Plan as modified or amended.

c. EPA may determine that in addition to tasks defined in the initially approved Focused RI/FS Work Plan, other additional Work may be necessary to accomplish the objectives of the Focused RI/FS. Respondents agree to perform these response actions in addition to those required by the initially approved Focused RI/FS Work Plan, including any approved modifications, if EPA determines that such actions are necessary for a complete Focused RI/FS.

d. Respondents shall confirm their willingness to perform the additional Work in writing to EPA within 7 days of receipt of the EPA request. If Respondents object to any modification determined by EPA to be necessary pursuant to this Paragraph, Respondents may seek dispute resolution pursuant to Section XV (Dispute Resolution). The Focused RI/FS Work Plan shall be modified in accordance with the final resolution of the dispute.

e. Respondents shall complete the additional Work according to the standards, specifications, and schedule set forth or approved by EPA in a written modification to the Focused RI/FS Work Plan or written Focused RI/FS Work Plan supplement. EPA reserves the right to conduct the Work itself at any point, to seek reimbursement from Respondents, and/or to seek any other appropriate relief.

f. Nothing in this Paragraph shall be construed to limit EPA's authority to require performance of further response actions at the Site.

54. Off-Site Shipment of Waste Material. Respondents shall, prior to any off-site shipment of Waste Material from the Site to an out-of-state waste management facility, provide written notification of such shipment of Waste Material to the appropriate state environmental official in the receiving facility's state and to EPA's Designated Project Coordinator. However, this notification requirement shall not apply to any off-site shipments when the total volume of all such shipments will not exceed 10 cubic yards.

a. Respondents shall include in the written notification the following information:

(1) the name and location of the facility to which the Waste Material is to be shipped; (2) the type and quantity of the Waste Material to be shipped; (3) the expected schedule for the shipment of the Waste Material; and (4) the method of transportation. Respondents shall notify the state in which the planned receiving facility is located of major changes in the shipment plan, such as a decision to ship the Waste Material to another facility within the same state, or to a facility in another state.

b. The identity of the receiving facility and state will be determined by Respondents following the award of the contract for the remedial investigation and feasibility study. Respondents shall provide the information required by Subparagraphs 54 a. and 54 c. as soon as practicable after the award of the contract and before the Waste Material is actually shipped.

c. Before shipping any hazardous substances, pollutants, or contaminants from the Site to an off-site location, Respondents shall obtain EPA's certification that the proposed receiving facility is operating in compliance with the requirements of CERCLA Section 121(d)(3), 42 U.S.C. § 9621(d)(3), and 40 C.F.R. § 300.440. Respondents shall only send hazardous substances, pollutants, or contaminants from the Site to an off-site facility that complies with the requirements of the statutory provision and regulation cited in the preceding sentence.

55. Meetings. Respondents shall make presentations at, and participate in, meetings at the request of EPA during the initiation, conduct, and completion of the Focused RI/FS. In addition to discussion of the technical aspects of the Focused RI/FS, topics will include anticipated problems or new issues. Meetings will be scheduled at EPA's discretion, but EPA shall use reasonable efforts to conduct such meetings, to the extent feasible, within the City of South Bend.

56. Progress Reports. In addition to the plans, reports and other deliverables set forth in this Settlement Agreement, beginning 30 days after the Effective Date of this Settlement Agreement, Respondents shall provide to EPA monthly progress reports by the 15th day of the following month. At a minimum, with respect to the preceding month, these progress reports shall (1) describe the actions, if any, which have been taken to comply with this Settlement Agreement during that month, (2) include all results of sampling and tests and all other data received by Respondents, (3) describe Work planned for the next two months with schedules relating such Work to the overall project schedule for Focused RI/FS completion, and (4) describe all problems encountered and any anticipated problems, any actual or anticipated delays, and solutions developed and implemented to address any actual or anticipated problems or delays.

57. Emergency Response and Notification of Releases.

a. In the event of any action or occurrence during performance of the Work which causes or threatens a release of Waste Material from the Site that constitutes an emergency

situation or may present an immediate threat to public health or welfare or the environment, Respondents shall immediately take all appropriate action. Respondents shall take these actions in accordance with all applicable provisions of this Settlement Agreement, including, but not limited to, the Health and Safety Plan, in order to prevent, abate or minimize such release or endangerment caused or threatened by the release. Respondents shall also immediately notify the EPA Remedial Project Manager or, in the event of his/her unavailability, the Regional Duty Officer EPA Region 5 Emergency Planning and Response Branch, 24-hour telephone number at (312) 353-2318, of the incident or Site conditions. In the event that Respondents fail to take appropriate response action as required by this Paragraph, and EPA takes such action instead, Respondents shall reimburse EPA all costs of the response action not inconsistent with the NCP pursuant to Section XVIII (Payment of Response Costs).

b. In addition, in the event of any release of a hazardous substance from the Site, Respondents shall immediately notify the EPA Remedial Project Manager, the OSC or Regional Duty Officer at (312) 353-2318 and the National Response Center at (800) 424-8802. Respondents shall submit a written report to EPA within 7 days after each release, setting forth the events that occurred and the measures taken or to be taken to mitigate any release or endangerment caused or threatened by the release and to prevent the reoccurrence of such a release. This reporting requirement is in addition to, and not in lieu of, reporting under Section 103(c) of CERCLA, 42 U.S.C. § 9603(c), and Section 304 of the Emergency Planning and Community Right-To-Know Act of 1986, 42 U.S.C. § 11004, *et seq.*

X. EPA APPROVAL OF PLANS AND OTHER SUBMISSIONS

58. After review of any plan, report or other item that is required to be submitted for approval pursuant to this Settlement Agreement, in a notice to Respondents EPA shall: (a) approve, in whole or in part, the submission; (b) approve the submission upon specified conditions; (c) modify the submission to cure the deficiencies; (d) disapprove, in whole or in part, the submission, directing that Respondents modify the submission; or (e) any combination of the above. However, EPA shall not modify a submission without first providing Respondents at least one notice of deficiency and an opportunity to cure within 7 days, except where to do so would cause serious disruption to the Work or where previous submission(s) have been disapproved due to material defects.

59. In the event of approval, approval upon conditions, or modification by EPA, pursuant to Subparagraph 58(a), (b), (c) or (e), Respondents shall proceed to take any action required by the plan, report or other deliverable, as approved or modified by EPA subject only to their right to invoke the Dispute Resolution procedures set forth in Section XV (Dispute Resolution) with respect to the modifications or conditions made by EPA. Following EPA approval or modification of a submission or portion thereof, Respondents shall not thereafter alter or amend such submission or portion thereof unless directed by EPA. In the event that EPA modifies the submission to cure the deficiencies pursuant to Subparagraph 58(c) and the submission had a material defect, EPA retains the right to seek stipulated penalties, as provided in Section XVI (Stipulated Penalties).

60. Resubmission.

a. Upon receipt of a notice of disapproval, Respondents shall, within 30 days or such longer time as specified by EPA in such notice, correct the deficiencies and resubmit the plan, report, or other deliverable for approval. Any stipulated penalties applicable to the submission, as provided in Section XVI, shall accrue during the 30-day period or otherwise specified period but shall not be payable unless the resubmission is disapproved or modified due to a material defect as provided in Paragraphs 58 and 59.

b. Notwithstanding the receipt of a notice of disapproval, Respondents shall proceed to take any action required by any non-deficient portion of the submission, unless otherwise directed by EPA. Implementation of any non-deficient portion of a submission shall not relieve Respondents of any liability for stipulated penalties under Section XVI (Stipulated Penalties).

c. Respondents shall not proceed further with any subsequent activities or tasks until receiving EPA approval, approval on condition or modification of the following deliverables: Focused RI/FS Work Plan and Focused Sampling and Analysis Plan, Draft Focused Remedial Investigation Report and Treatability Testing Work Plan and Sampling and Analysis Plan and Draft Focused Feasibility Study Report. While awaiting EPA approval, approval on condition or modification of these deliverables, Respondents shall proceed with all other tasks and activities which may be conducted independently of these deliverables, in accordance with the schedule set forth under this Settlement Agreement.

d. For all remaining deliverables not listed above in subparagraph 60 c., Respondents shall proceed with all subsequent tasks, activities and deliverables without awaiting EPA approval on the submitted deliverable. EPA reserves the right to stop Respondents from proceeding further, either temporarily or permanently, on any task, activity or deliverable at any point during the Focused RI/FS of the LPA.

61. If EPA disapproves a resubmitted plan, report or other deliverable, or portion thereof, EPA may again direct Respondents to correct the deficiencies. EPA shall also retain the right to modify or develop the plan, report or other deliverable. Respondents shall implement any such plan, report, or deliverable as corrected, modified or developed by EPA, subject only to Respondents' right to invoke the procedures set forth in Section XV (Dispute Resolution).

62. If upon resubmission, a plan, report, or other deliverable is disapproved or modified by EPA due to a material defect, Respondents shall be deemed to have failed to submit such plan, report, or other deliverable timely and adequately unless Respondents invoke the dispute resolution procedures in accordance with Section XV (Dispute Resolution) and EPA's action is revoked or substantially modified pursuant to a Dispute Resolution decision issued by EPA or superceded by an agreement reached pursuant to that Section. The provisions of Section XV (Dispute Resolution) and Section XVI (Stipulated Penalties) shall govern the implementation of the Work and accrual and payment of any stipulated penalties during Dispute Resolution. If EPA's disapproval or modification is not otherwise revoked, substantially modified or

superceded as a result of a decision or agreement reached pursuant to the Dispute Resolution process set forth in Section XV, stipulated penalties shall accrue for such violation from the date on which the initial submission was originally required, as provided in Section XVI.

63. In the event that EPA takes over some of the tasks, but not the preparation of the Focused RI Report or the Focused FS Report, Respondents shall incorporate and integrate information supplied by EPA into the final reports.

64. All plans, reports, and other deliverables submitted to EPA under this Settlement Agreement shall, upon approval or modification by EPA, be incorporated into and enforceable under this Settlement Agreement. In the event EPA approves or modifies a portion of a plan, report, or other deliverable submitted to EPA under this Settlement Agreement, the approved or modified portion shall be incorporated into and enforceable under this Settlement Agreement.

65. Neither failure of EPA to expressly approve or disapprove of Respondents' submissions within a specified time period, nor the absence of comments, shall be construed as approval by EPA. Whether or not EPA gives express approval for Respondents' deliverables, Respondents are responsible for preparing deliverables acceptable to EPA.

XI. QUALITY ASSURANCE, SAMPLING, AND ACCESS TO INFORMATION

66. Quality Assurance. Respondents shall assure that Work performed, samples taken and analyses conducted conform to the requirements of the SOW, the QAPP and guidances identified therein. Respondents will assure that field personnel used by Respondents are properly trained in the use of field equipment and in chain of custody procedures. Respondents shall only use laboratories which have a documented quality system that complies with "EPA Requirements for Quality Management Plans (QA/R-2)" (EPA/240/B-01/002, March 2001) or equivalent documentation as determined by EPA.

67. Sampling.

a. All results of sampling, tests, modeling or other data (including raw data) generated by Respondents, or on Respondents' behalf, during the period that this Settlement Agreement is effective, shall be submitted to EPA in the next monthly progress report as described in Paragraph 56 of this Settlement Agreement. EPA will make available to Respondents validated data generated by EPA unless it is exempt from disclosure by any federal or state law or regulation.

b. Respondents shall verbally notify EPA and the State at least 14 days prior to conducting significant field events as described in the SOW, Focused RI/FS Work Plan or Sampling and Analysis Plan. At EPA's verbal or written request, or the request of EPA's oversight assistant, Respondents shall allow split or duplicate samples to be taken by EPA (and its authorized representatives) or the State of any samples collected in implementing this Settlement Agreement. All split samples of Respondents shall be analyzed by the methods identified in the QAPP.

68. Access to Information.

a. Respondents shall provide to EPA and the State, upon request, copies of all documents and information within their possession or control or that of their contractors or agents relating to activities at the Site or to the implementation of this Settlement Agreement, including, but not limited to, sampling, analysis, chain of custody records, manifests, trucking logs, receipts, reports, sample traffic routing, or other documents or information related to the Work. Respondents shall also make available to EPA and the State, for purposes of investigation, information gathering, or testimony, their employees, agents, or representatives with knowledge of relevant facts concerning the performance of the Work.

b. Respondents may assert business confidentiality claims covering part or all of the documents or information submitted to EPA and the State under this Settlement Agreement to the extent permitted by and in accordance with Section 104(e)(7) of CERCLA, 42 U.S.C. § 9604(e)(7), and 40 C.F.R. § 2.203(b). Documents or information determined to be confidential by EPA will be afforded the protection specified in 40 C.F.R. Part 2, Subpart B. If no claim of confidentiality accompanies documents or information when it is submitted to EPA and the State, or if EPA has notified Respondents that the documents or information are not confidential under the standards of Section 104(e)(7) of CERCLA or 40 C.F.R. Part 2, Subpart B, the public may be given access to such documents or information without further notice to Respondents. Respondents shall segregate and clearly identify all documents or information submitted under this Settlement Agreement for which Respondents assert business confidentiality claims.

c. Respondents may assert that certain documents, records and other information are privileged under the attorney-client privilege or any other privilege recognized by federal law. If the Respondents assert such a privilege in lieu of providing documents, they shall provide EPA and the State with the following: 1) the title of the document, record, or information; 2) the date of the document, record, or information; 3) the name and title of the author of the document, record, or information; 4) the name and title of each addressee and recipient; 5) a description of the contents of the document, record, or information; and 6) the privilege asserted by Respondents. However, no documents, reports or other information created or generated pursuant to the requirements of this Settlement Agreement shall be withheld on the grounds that they are privileged.

d. No claim of confidentiality shall be made with respect to any data, including, but not limited to, all sampling, analytical, monitoring, hydrogeologic, scientific, chemical, or engineering data, or any other documents or information evidencing conditions at or around the Site.

69. In entering into this Settlement Agreement, Respondents waive any objections to any data gathered, generated, or evaluated by EPA, the State or Respondents in the performance or oversight of the Work that has been verified according to the quality assurance/quality control ("QA/QC") procedures required by the Settlement Agreement or any EPA-approved Focused RI/FS Work Plans or Sampling and Analysis Plans. If Respondents object to any other data relating to the Focused RI/FS, Respondents shall submit to EPA a report that specifically identifies

and explains its objections, describes the acceptable uses of the data, if any, and identifies any limitations to the use of the data. The report must be submitted to EPA within 15 days of the monthly progress report containing the data.

XII. SITE ACCESS AND INSTITUTIONAL CONTROLS

70. If the Site, or any other property where access is needed to implement this Settlement Agreement, is owned or controlled by any of Respondents, such Respondents shall, commencing on the Effective Date, provide EPA, the State, and their representatives, including contractors, with access at all reasonable times to the Site, or such other property, for the purpose of conducting any activity related to this Settlement Agreement.

71. Where any action under this Settlement Agreement is to be performed in areas owned by or in possession of someone other than Respondents, Respondents shall use their best efforts to obtain all necessary access agreements within 60 days after the Effective Date, or as otherwise specified in writing by the EPA Project Coordinator. Respondents shall immediately notify EPA if after using their best efforts they are unable to obtain such agreements. For purposes of this Paragraph, "best efforts" includes the payment of reasonable sums of money in consideration of access. Respondents shall describe in writing their efforts to obtain access. If Respondents cannot obtain access agreements, EPA may either (i) obtain access for Respondents or assist Respondents in gaining access, to the extent necessary to effectuate the response actions described herein, using such means as EPA deems appropriate; (ii) perform those tasks or activities with EPA contractors; or (iii) terminate the Settlement Agreement. Respondents shall reimburse EPA for all costs and attorney's fees incurred by the United States in obtaining such access, in accordance with the procedures in Section XVIII (Payment of Response Costs). If EPA performs those tasks or activities with EPA contractors and does not terminate the Settlement Agreement, Respondents shall perform all other tasks or activities not requiring access to that property, and shall reimburse EPA for all costs incurred in performing such tasks or activities. Respondents shall integrate the results of any such tasks or activities undertaken by EPA into its plans, reports and other deliverables.

72. Notwithstanding any provision of this Settlement Agreement, EPA and the State retain all of their access authorities and rights, as well as all of their rights to require land/water use restrictions, including enforcement authorities related thereto, under CERCLA, RCRA, and any other applicable statutes or regulations.

XIII. COMPLIANCE WITH OTHER LAWS

73. Respondents shall comply with all applicable local, state and federal laws and regulations when performing the Focused RI/FS. No local, state, or federal permit shall be required for any portion of any action conducted entirely on-site, including studies, if the action is selected and carried out in compliance with Section 121 of CERCLA, 42 U.S.C. § 9621. Where any portion of the Work is to be conducted off-site and requires a federal or state permit or approval, Respondents shall submit timely and complete applications and take all other

actions necessary to obtain and to comply with all such permits or approvals. This Settlement Agreement is not, and shall not be construed to be, a permit issued pursuant to any federal or state statute or regulation.

XIV. RETENTION OF RECORDS

74. During the pendency of this Settlement Agreement and for a minimum of 10 years after commencement of construction of any remedial action, each Respondent shall preserve and retain all non-identical copies of documents, records, and other information (including documents, records, or other information in electronic form) now in its possession or control or which come into its possession or control that relate in any manner to the performance of the Work or the liability of any person under CERCLA with respect to the Site, regardless of any corporate retention policy to the contrary. Until 10 years after commencement of construction of any remedial action, Respondents shall also instruct their contractors and agents to preserve all documents, records, and other information of whatever kind, nature or description relating to performance of the Work.

75. At the conclusion of this document retention period, Respondents shall notify EPA at least 90 days prior to the destruction of any such documents, records or other information, and, upon request by EPA, Respondents shall deliver any such documents, records, or other information to EPA. Respondents may assert that certain documents, records, and other information are privileged under the attorney-client privilege or any other privilege recognized by federal law. If Respondents assert such a privilege, they shall provide EPA with the following: 1) the title of the document, record, or other information; 2) the date of the document, record, or other information; 3) the name and title of the author of the document, record, or other information; 4) the name and title of each addressee and recipient; 5) a description of the subject of the document, record, or other information; and 6) the privilege asserted by Respondents. However, no documents, records or other information created or generated pursuant to the requirements of this Settlement Agreement shall be withheld on the grounds that they are privileged.

76. Each Respondent hereby certifies individually that to the best of its knowledge and belief, after thorough inquiry, it has not altered, mutilated, discarded, destroyed or otherwise disposed of any records, documents or other information (other than identical copies) relating to its potential liability regarding the Site since notification of potential liability by EPA or the filing of suit against it regarding the Site and that it has fully complied with any and all EPA requests for information pursuant to Sections 104(e) and 122(e) of CERCLA, 42 U.S.C. §§ 9604(e) and 9622(e), and Section 3007 of RCRA, 42 U.S.C. § 6927.

XV. DISPUTE RESOLUTION

77. Unless otherwise expressly provided for in this Settlement Agreement, the dispute resolution procedures of this Section shall be the exclusive mechanism for resolving disputes arising under this Settlement Agreement. The Parties shall attempt to resolve any disagreements concerning this Settlement Agreement expeditiously and informally.

78. If Respondents object to any EPA action taken pursuant to this Settlement Agreement, including billings for Future Response Costs, they shall notify EPA in writing of their objection(s) within 21 days of such action, unless the objection(s) has/have been resolved informally. EPA and Respondents shall have 21 days from EPA's receipt of Respondents' written objection(s) to resolve the dispute (the "Negotiation Period"). The Negotiation Period may be extended at the sole discretion of EPA. Such extension may be granted verbally but must be confirmed in writing.

79. Any agreement reached by the Parties pursuant to this Section shall be in writing and shall, upon signature by the Parties, be incorporated into and become an enforceable part of this Settlement Agreement. If the Parties are unable to reach an agreement within the Negotiation Period, an EPA management official at the Superfund Branch Chief level or higher will issue a written decision. EPA's decision shall be incorporated into and become an enforceable part of this Settlement Agreement. Respondents' obligations under this Settlement Agreement shall not be tolled by submission of any objection for dispute resolution under this Section. Following resolution of the dispute, as provided by this Section, Respondents shall fulfill the requirement that was the subject of the dispute in accordance with the agreement reached or with EPA's decision, whichever occurs, and regardless of whether Respondents agree with the decision.

XVI. STIPULATED PENALTIES

80. Respondents shall be liable to EPA for stipulated penalties in the amounts set forth in Paragraphs 81, 82, 83 and 84 for failure to comply with any of the requirements of this Settlement Agreement specified below unless excused under Section XVII (Force Majeure). "Compliance" by Respondents shall include completion of the Work under this Settlement Agreement or any activities contemplated under any Focused RI/FS Work Plan or other plan approved under this Settlement Agreement identified below, in accordance with all applicable requirements of law, this Settlement Agreement, the SOW, and any plans or other documents approved by EPA pursuant to this Settlement Agreement and within the specified time schedules established by and approved under this Settlement Agreement.

81. Stipulated Penalty Amounts - Work.

a. The following stipulated penalties shall accrue per day for any noncompliance identified in Subparagraph 81(b):

<u>Penalty Per Violation Per Day</u>	<u>Period of Noncompliance</u>
\$ 500	1 st through 14 th day
\$1000	15 th through 30 th day
\$ 2000	31 st day and beyond

b. Compliance Milestones

1. Respondents shall pay Future Response Costs as provided in Section XVIII (Payment of Response Costs).

2. Respondents shall timely and/or adequately implement work as prescribed in this Settlement Agreement and the Statement of Work, subject to the availability of access rights to the Site as provided in Section XII (Site Access).

82. Stipulated Penalty Amounts - Reports.

a. The following stipulated penalties shall accrue per violation per day for failure to submit timely or adequate reports or other written documents pursuant to Paragraphs 51, 54 and 56:

<u>Penalty Per Violation Per Day</u>	<u>Period of Noncompliance</u>
\$ 500	1 st through 14 th day
\$ 1000	15 th through 30 th day
\$ 1500	31 st day and beyond

83. In the event that EPA assumes performance of a portion or all of the Work pursuant to Paragraphs 99 or 100 of Section XX (Reservations of Rights by EPA), Respondents shall be liable for a stipulated penalty in the amount of \$1000 per day.

84. Respondents shall be liable for stipulated penalties in the amount of \$500 per day for the first 14 days or part thereof and \$1000 per day for each week or part thereof thereafter for failure to meet any other obligation under the Settlement Agreement including the SOW that is not addressed in Paragraphs 81, 82 or 83 above.

85. All penalties shall begin to accrue on the day after the complete performance is due or the day a violation occurs, and shall continue to accrue through the final day of the correction of the noncompliance or completion of the activity. However, stipulated penalties shall not accrue: (a) with respect to a deficient submission under Section X (EPA Approval of Plans and Other Submissions), during the period, if any, beginning on the 31st day after EPA's receipt of such submission until the date that EPA notifies Respondents of any deficiency; and (b) with respect to a decision by the EPA Management Official designated in Paragraph 79 of Section XV (Dispute Resolution), during the period, if any, beginning on the 21st day after the Negotiation Period begins until the date that the EPA Management Official issues a final decision regarding such dispute. Nothing herein shall prevent the simultaneous accrual of separate penalties for separate violations of this Settlement Agreement.

86. Following EPA's determination that Respondents have failed to comply with a requirement of this Settlement Agreement, EPA may give Respondents written notification of the same and describe the noncompliance. EPA may send Respondents a written demand for the payment of the penalties. However, penalties shall accrue as provided in the preceding Paragraph regardless of whether EPA has notified Respondents of a violation.

87. All penalties accruing under this Section shall be due and payable to EPA within 30 days of Respondents' receipt from EPA of a demand for payment of the penalties, unless Respondents invoke the dispute resolution procedures in accordance with Section XV (Dispute Resolution). Respondents shall make all payments required by this Paragraph to EPA by Fedwire Electronic Transfer Funds Transfer to:

Federal Reserve Bank of New York

ABA = 021030004

Account = 6810727

SWIFT address = FRNYUS33

33 Liberty Street

New York NY 10045

Field Tag 4200 of the Fedwire message should read "D68010727
Environmental Protection Agency"

and shall indicate that the payment is for stipulated penalties, and shall reference the EPA Region and Beck Lake Site/Spill ID Number B5GS, the EPA Docket Number, and the name and address of the party(ies) making payment. At the time of payment, Respondents shall send notice that payment has been made as provided in Paragraph 95 b. below.

88. The payment of penalties shall not alter in any way Respondents' obligation to complete performance of the Work required under this Settlement Agreement.

89. Penalties shall continue to accrue as provided in Paragraph 85 during any dispute resolution period, but need not be paid until 15 days after the dispute is resolved by agreement or by receipt of EPA's decision.

90. If Respondents fail to pay stipulated penalties when due, EPA may institute proceedings to collect the penalties, as well as Interest. Respondents shall pay Interest on the unpaid balance, which shall begin to accrue on the date of demand made pursuant to Paragraph 87.

91. Nothing in this Settlement Agreement shall be construed as prohibiting, altering, or in any way limiting the ability of EPA to seek any other remedies or sanctions available by virtue of Respondents' violation of this Settlement Agreement or of the statutes and regulations upon which it is based, including, but not limited to, penalties pursuant to Section 122(l) of CERCLA, 42 U.S.C. § 9622(l), and punitive damages pursuant to Section 107(c)(3) of CERCLA, 42 U.S.C. § 9607(c)(3). Provided, however, that EPA shall not seek civil penalties pursuant to Section

122(l) of CERCLA or punitive damages pursuant to Section 107(c)(3) of CERCLA for any violation for which a stipulated penalty is provided herein, except in the case of willful violation of this Settlement Agreement or in the event that EPA assumes performance of a portion or all of the Work pursuant to Section XX (Reservation of Rights by EPA), Paragraphs 99 and 100. Notwithstanding any other provision of this Section, EPA may, in its unreviewable discretion, waive any portion of stipulated penalties that have accrued pursuant to this Settlement Agreement.

XVII. FORCE MAJEURE

92. Respondents agree to perform all requirements of this Settlement Agreement within the time limits established under this Settlement Agreement, unless the performance is delayed by a *force majeure*. For purposes of this Settlement Agreement, *force majeure* is defined as any event arising from causes beyond the control of Respondents or of any entity controlled by Respondents, including but not limited to their contractors and subcontractors, which delays or prevents performance of any obligation under this Settlement Agreement despite Respondents' best efforts to fulfill the obligation. *Force majeure* does not include financial inability to complete the Work or increased cost of performance.

93. If any event occurs or has occurred that may delay the performance of any obligation under this Settlement Agreement, whether or not caused by a *force majeure* event, Respondents shall notify EPA orally within 48 hours of when Respondents first knew that the event might cause a delay. Within 7 days thereafter, Respondents shall provide to EPA in writing an explanation and description of the reasons for the delay; the anticipated duration of the delay; all actions taken or to be taken to prevent or minimize the delay; a schedule for implementation of any measures to be taken to prevent or mitigate the delay or the effect of the delay; Respondents' rationale for attributing such delay to a *force majeure* event if they intend to assert such a claim; and a statement as to whether, in the opinion of Respondents, such event may cause or contribute to an endangerment to public health, welfare or the environment. Failure to comply with the above requirements shall preclude Respondents from asserting any claim of *force majeure* for that event for the period of time of such failure to comply and for any additional delay caused by such failure.

94. If EPA agrees that the delay or anticipated delay is attributable to a *force majeure* event, the time for performance of the obligations under this Settlement Agreement that are affected by the *force majeure* event will be extended by EPA for such time as is necessary to complete those obligations. An extension of the time for performance of the obligations affected by the *force majeure* event shall not, of itself, extend the time for performance of any other obligation. If EPA does not agree that the delay or anticipated delay has been or will be caused by a *force majeure* event, EPA will notify Respondents in writing of its decision. If EPA agrees that the delay is attributable to a *force majeure* event, EPA will notify Respondents in writing of the length of the extension, if any, for performance of the obligations affected by the *force majeure* event.

XVIII. PAYMENT OF RESPONSE COSTS

95. Payments of Future Response Costs.

a. Respondents shall pay EPA all Future Response Costs not inconsistent with the NCP. On a periodic basis, EPA will send Respondents a bill requiring payment that includes a Region 5 Itemized Cost Summary, which includes direct and indirect costs incurred by EPA and its contractors. Respondents shall make all payments within 60 days of receipt of each bill requiring payment, except as otherwise provided in Paragraph 97 of this Settlement Agreement.

i. If the amount demanded in the bill is for \$10,000 or greater, payment shall be made to EPA by Electronic Funds Transfer ("EFT") in accordance with current EFT procedures to be provided to Respondents by EPA Region 5, and shall be accompanied by a statement identifying the name and address of the party(ies) making payment, the Becks Lake Site name, the EPA Region and Site/Spill ID Number B5GS, and the EPA docket number for this action.

ii. If the amount demanded in the bill is for less than \$10,000, payment shall be made to EPA by a certified or cashier's check or checks made payable to "EPA Hazardous Substance Superfund," referencing the name and address of the party(ies) making payment and Becks Lake EPA Site/Spill ID number B5GS. Respondents shall send the check(s) to:

U.S. Environmental Protection Agency, Region 5 Superfund Payments
Cincinnati Finance Center
P.O. Box 979076
St. Louis, MO 63197-9000

b. At the time of payment, Respondents shall send notice that payment has been made to:

Mary L. Fulghum
Associate Regional Counsel
Office of Regional Counsel
U.S. EPA Mail Code C-14J
77 West Jackson Blvd.
Chicago, IL 60604-3590

Jenny Davison
Remedial Project Manager
U.S. EPA Mail Code SR-
5J 77 West Jackson Blvd.
Chicago, IL 60604-3590

and to the EPA Cincinnati Finance Center by email at cinwd_acctsreceivable@epa.gov, or by mail to:

EPA Cincinnati Finance Office
26 W. Martin Luther King Drive
Cincinnati, Ohio 45268

c. The total amount to be paid by Respondents pursuant to Subparagraph 95 a. shall be deposited in the Beck's Lake Special Account within the EPA Hazardous Substance Superfund to be retained and used to conduct or finance response actions at or in connection with the Site, or to be transferred by EPA to the EPA Hazardous Substance Superfund.

96. If Respondents do not pay Future Response Costs within 60 days of Respondents' receipt of a bill, Respondents shall pay Interest on the unpaid balance. The Interest on unpaid Future Response Costs shall begin to accrue on the date of the bill and shall continue to accrue until the date of payment. If EPA receives a partial payment, Interest shall accrue on any unpaid balance. Payments of Interest made under this Paragraph shall be in addition to such other remedies or sanctions available to the United States by virtue of Respondents' failure to make timely payments under this Section, including but not limited to, payments of stipulated penalties pursuant to Section XVI. Respondents shall make all payments required by this Paragraph in the manner described in Paragraph 95.

97. Respondents may contest payment of any Future Response Costs under Paragraph 95 if they determine that EPA has made an accounting error or if they believe EPA incurred excess costs as a direct result of an EPA action that was inconsistent with the NCP. Such objection shall be made in writing within 30 days of receipt of the bill and must be sent to the EPA Project Coordinator. Any such objection shall specifically identify the contested Future Response Costs and the basis for objection. In the event of an objection, Respondents shall within the 30 day period pay all uncontested Future Response Costs to EPA in the manner described in Paragraph 95. Simultaneously, Respondents shall establish an interest-bearing escrow account in a federally-insured bank duly chartered in the State of Indiana and remit to that escrow account funds equivalent to the amount of the contested Future Response Costs. Respondents shall send to the EPA Project Coordinator a copy of the transmittal letter and check paying the uncontested Future Response Costs, and a copy of the correspondence that establishes and funds the escrow account, including, but not limited to, information containing the identity of the bank and bank account under which the escrow account is established as well as a bank statement showing the initial balance of the escrow account. Simultaneously with establishment of the escrow account, Respondents shall initiate the Dispute Resolution procedures in Section XV (Dispute Resolution). If EPA prevails in the dispute, within 5 days of the resolution of the dispute, Respondents shall pay the sums due (with accrued interest) to EPA in the manner described in Paragraph 95. If Respondents prevail concerning any aspect of the contested costs, Respondents shall pay that portion of the costs (plus associated accrued interest) for which they did not prevail to EPA in the manner described in Paragraph 95. Respondents shall be disbursed any balance of the escrow account. The dispute resolution procedures set forth in this Paragraph

in conjunction with the procedures set forth in Section XV (Dispute Resolution) shall be the exclusive mechanisms for resolving disputes regarding Respondents' obligation to reimburse EPA for its Future Response Costs.

XIX. COVENANT NOT TO SUE BY EPA

98. In consideration of the actions that will be performed and the payments that will be made by Respondents under the terms of this Settlement Agreement, and except as otherwise specifically provided in this Settlement Agreement, EPA covenants not to sue or to take administrative action against Respondents pursuant to Sections 106 and 107(a) of CERCLA, 42 U.S.C. §§ 9606 and 9607(a), for the Work performed under this Settlement Agreement and for recovery of Future Response Costs. This covenant not to sue shall take effect upon the Effective Date and is conditioned upon the complete and satisfactory performance by Respondents of their obligations under this Settlement Agreement, including, but not limited to, payment of Future Response Costs pursuant to Paragraph 95. This covenant not to sue extends only to Respondents and does not extend to any other person.

XX. RESERVATIONS OF RIGHTS BY EPA

99. Except as specifically provided in this Settlement Agreement, nothing herein shall limit the power and authority of EPA or the United States to take, direct, or order all actions necessary to protect public health, welfare, or the environment or to prevent, abate, or minimize an actual or threatened release of hazardous substances, pollutants or contaminants, or hazardous or solid waste on, at, or from the Site. Further, nothing herein shall prevent EPA from seeking legal or equitable relief to enforce the terms of this Settlement Agreement, from taking other legal or equitable action as it deems appropriate and necessary, or from requiring Respondents in the future to perform additional activities pursuant to CERCLA or any other applicable law.

100. The covenant not to sue set forth in Section XIX above does not pertain to any matters other than those expressly identified therein. EPA reserves, and this Settlement Agreement is without prejudice to, all rights against Respondents with respect to all other matters, including, but not limited to:

- a. claims based on a failure by Respondents to meet a requirement of this Settlement Agreement;
- b. liability for costs not included within the definition of Future Response Costs;
- c. liability for performance of response action other than the Work;
- d. criminal liability;
- e. liability for violations of federal or state law that occur during or after implementation of the of the Work;

- f. liability for damages for injury to, destruction of, or loss of natural resources, and for the costs of any natural resource damage assessments;
- g. liability arising from the past, present, or future disposal, release or threat of release of Waste Materials outside of the Site; and
- h. liability for costs incurred or to be incurred by the Agency for Toxic Substances and Disease Registry related to the Site.

101. Work Takeover. In the event EPA determines that Respondents have ceased implementation of any portion of the Work, are seriously or repeatedly deficient or late in their performance of the Work, or are implementing the Work in a manner which may cause an endangerment to human health or the environment, EPA may assume the performance of all or any portion of the Work as EPA determines necessary. Respondents may invoke the procedures set forth in Section XV (Dispute Resolution) to dispute EPA's determination that takeover of the Work is warranted under this Paragraph. Costs incurred by EPA in performing the Work pursuant to this Paragraph shall be considered Future Response Costs that Respondents shall pay pursuant to Section XVIII (Payment of Response Costs). Notwithstanding any other provision of this Settlement Agreement, EPA retains all authority and reserves all rights to take any and all response actions authorized by law.

XXI. COVENANT NOT TO SUE BY RESPONDENTS

102. Respondents covenant not to sue and agree not to assert any claims or causes of action against the United States, or its contractors or employees, with respect to the Work, Future Response Costs, or this Settlement Agreement, including, but not limited to:

- a. any direct or indirect claim for reimbursement from the Hazardous Substance Superfund established by 26 U.S.C. § 9507, based on Sections 106(b)(2), 107, 111, 112, or 113 of CERCLA, 42 U.S.C. §§ 9606(b)(2), 9607, 9611, 9612, or 9613, or any other provision of law;
- b. any claim arising out of the Work or arising out of the response actions for which the Future Response Costs have or will be incurred, including any claim under the United States Constitution, the Indiana Constitution, the Tucker Act, 28 U.S.C. § 1491, the Equal Access to Justice Act, 28 U.S.C. § 2412, as amended, or at common law; or
- c. any claim against the United States pursuant to Sections 107 and 113 of CERCLA, 42 U.S.C. §§ 9607 and 9613, Section 7002(a) of RCRA, 42 U.S.C. § 6972 (a) or state law relating to the Work or payment of Future Response Costs.

103. Nothing in this Agreement shall be deemed to constitute approval or preauthorization of a claim within the meaning of Section 111 of CERCLA, 42 U.S.C. § 9611, or 40 C.F.R. § 300.700(d).

104. Respondents agree not to assert any claims and to waive all claims or causes of action that they may have for all matters relating to the Site, including for contribution, against

any person where the person's liability to Respondents with respect to the Site is based solely on having arranged for disposal or treatment, or for transport for disposal or treatment, of Municipal Solid Waste (MSW) at the Site, if the volume of MSW disposed, treated or transported by such person to the Site did not exceed 0.2 percent of the total volume of waste at the Site.

105. The waiver in Paragraph 104 above shall not apply with respect to any defense, claim, or cause of action that a Respondent may have against any person meeting the above criteria if such person asserts a claim or cause of action relating to the Site against such Respondent. This waiver also shall not apply to any claim or cause of action against any person meeting the above criteria if EPA determines that: (a) the MSW contributed significantly or could contribute significantly, either individually or in the aggregate, to the cost of the response action or natural resource restoration at the Site; (b) the person has failed to comply with any information request or administrative subpoena issued pursuant to Section 104(e) or 122(e) of CERCLA, 42 U.S.C. § 9604(e) or § 9622(e), or Section 3007 of RCRA, 42 U.S.C. § 6927; or (c) the person impeded or is impeding, through action or inaction, the performance of a response action or natural resource restoration with respect to the Site.

XXII. OTHER CLAIMS

106. By issuance of this Settlement Agreement, the United States and EPA assume no liability for injuries or damages to persons or property resulting from any acts or omissions of Respondents.

107. Except as expressly provided in Section XXI, Paragraphs 104 and 105 (MSW Waiver) and Section XIX (Covenant Not to Sue by EPA), nothing in this Settlement Agreement constitutes a satisfaction of or release from any claim or cause of action against Respondents or any person not a party to this Settlement Agreement, for any liability such person may have under CERCLA, other statutes, or common law, including but not limited to any claims of the United States for costs, damages and interest under Sections 106 and 107 of CERCLA, 42 U.S.C. §§ 9606 and 9607.

108. No action or decision by EPA pursuant to this Settlement Agreement shall give rise to any right to judicial review except as set forth in Section 113(h) of CERCLA, 42 U.S.C. § 9613(h).

XXIII. EFFECT OF SETTLEMENT/CONTRIBUTION

109. Except as provided in Paragraphs 104 and 105 (Claims against MSW generators and transporters), nothing in this Settlement Agreement shall be construed to create any rights in, or grant any cause of action to, any person not a Party to this Settlement Agreement. Except as provided in Section XXI (Covenant Not to Sue by Respondents), each of the Parties expressly reserves any and all rights (including, but not limited to, pursuant to Section 113 of CERCLA, 42 U.S.C. § 9613), defenses, claims, demands, and causes of action which each Party may have with respect to any matter, transaction, or occurrence relating in any way to the Site against any person not a Party hereto. Nothing in this Settlement Agreement diminishes the right of the United States, pursuant to Section 113(f)(2) and (3) of CERCLA, 42 U.S.C. § 9613(f)(2)-(3), to pursue

any such persons to obtain additional response costs or response action and to enter into settlements that give rise to contribution protection pursuant to Section 113(f)(2).

110. The Parties agree that this Settlement Agreement constitutes an administrative settlement pursuant to which each Respondent has, as of the Effective Date, resolved liability to the United States within the meaning of Sections 113(f)(2) and 122(h)(4) of CERCLA, 42 U.S.C. §§ 9613(f)(2) and 9622(h)(4), and is entitled, as of the Effective Date, to protection from contribution actions or claims as provided by Sections 113(f)(2) and 122(h)(4) of CERCLA, or as may be otherwise provided by law, for the "matters addressed" in this Settlement Agreement. The "matters addressed" in this Settlement Agreement are the Work and Future Response Costs.

111. The Parties further agree that this Settlement Agreement constitutes an administrative settlement pursuant to which each Respondent has, as of the Effective Date, resolved liability to the United States within the meaning of Section 113(f)(3)(B) of CERCLA, 42 U.S.C. § 9613(f)(3)(B).

112. Each Respondent shall, with respect to any suit or claim brought by it for matters related to this Settlement Agreement, notify EPA in writing no later than 60 days prior to the initiation of such suit or claim. Each Respondent also shall, with respect to any suit or claim brought against it for matters related to this Settlement Agreement, notify EPA in writing within 10 days after service of the complaint or claim upon it. In addition, each Respondent shall notify EPA within 10 days after service or receipt of any Motion for Summary Judgment and within 10 days after receipt of any order from a court setting a case for trial, for matters related to this Settlement Agreement.

113. In any subsequent administrative or judicial proceeding initiated by EPA, or by the United States on behalf of EPA, for injunctive relief, recovery of response costs, or other relief relating to the Site, Settling Parties shall not assert, and may not maintain, any defense or claim based upon the principles of waiver, res judicata, collateral estoppel, issue preclusion, claim-splitting, or other defenses based upon any contention that the claims raised in the subsequent proceeding were or should have been brought in the instant case; provided, however, that nothing in this Paragraph affects the enforceability of the covenant by EPA set forth in Section XIX.

114. Effective upon signature of this Settlement Agreement by a Respondent, such Respondent agrees that the time period commencing on the date of its signature and ending on the date EPA receives from such Respondent the payment(s) required by Section XVIII (Payment of Response Costs) and, if any, Section XVI (Stipulated Penalties) shall not be included in computing the running of any statute of limitations potentially applicable to any action brought by the United States related to the "matters addressed" as defined in Paragraph 110 and that, in any action brought by the United States related to the "matters addressed," such Respondent will not assert, and may not maintain, any defense or claim based upon principles of statute of limitations, waiver, laches, estoppel, or other defense based on the passage of time during such period. If EPA gives notice to Respondents that it will not make this Settlement Agreement effective, the statute of limitations shall begin to run again commencing ninety days after the date such notice is sent by EPA.

XXIV. INDEMNIFICATION

115. Respondents shall indemnify, save and hold harmless the United States, its officials, agents, contractors, subcontractors, employees and representatives from any and all claims or causes of action arising from, or on account of negligent or other wrongful acts or omissions of Respondents, their officers, directors, employees, agents, contractors, or subcontractors, in carrying out actions pursuant to this Settlement Agreement. In addition, Respondents agree to pay the United States all costs incurred by the United States, including but not limited to attorneys fees and other expenses of litigation and settlement, arising from or on account of claims made against the United States based on negligent or other wrongful acts or omissions of Respondents, their officers, directors, employees, agents, contractors, subcontractors and any persons acting on their behalf or under their control, in carrying out activities pursuant to this Settlement Agreement. The United States shall not be held out as a party to any contract entered into by or on behalf of Respondents in carrying out activities pursuant to this Settlement Agreement. Neither Respondents nor any such contractor shall be considered an agent of the United States.

116. The United States shall give Respondents notice of any claim for which the United States plans to seek indemnification pursuant to this Section and shall consult with Respondents prior to settling such claim.

117. Respondents waive all claims against the United States for damages or reimbursement or for set-off of any payments made or to be made to the United States, arising from or on account of any contract, agreement, or arrangement between any one or more of Respondents and any person for performance of Work on or relating to the Site. In addition, Respondents shall indemnify and hold harmless the United States with respect to any and all claims for damages or reimbursement arising from or on account of any contract, agreement, or arrangement between any one or more of Respondents and any person for performance of Work on or relating to the Site.

XXV. INSURANCE

118. At least 21 days prior to commencing any On-Site Work under this Settlement Agreement, Respondents shall secure, and shall maintain for the duration of this Settlement Agreement, comprehensive general liability insurance and automobile insurance with limits of \$2,000,000 combined single limit, naming the EPA as an additional insured. Within the same period, Respondents shall provide EPA with certificates of such insurance and a copy of each insurance policy. Respondents shall submit such certificates and copies of policies each year on the anniversary of the Effective Date. In addition, for the duration of the Settlement Agreement, Respondents shall satisfy, or shall ensure that their contractors or subcontractors satisfy, all applicable laws and regulations regarding the provision of worker's compensation insurance for all persons performing the Work on behalf of Respondents in furtherance of this Settlement Agreement. If Respondents demonstrate by evidence satisfactory to EPA that any contractor or subcontractor maintains insurance equivalent to that described above, or insurance covering

some or all of the same risks but in an equal or lesser amount, then Respondents need provide only that portion of the insurance described above which is not maintained by such contractor or subcontractor.

XXVI. FINANCIAL ASSURANCE

119. Within 30 days of the Effective Date, Respondent Honeywell shall establish and maintain financial security for the benefit of EPA in the amount of \$5,000,000 in one or more of the following forms, to secure the full and final completion of Work by Respondents:

- a. a surety bond unconditionally guaranteeing payment and/or performance of the Work;
- b. one or more irrevocable letters of credit, payable to or at the direction of EPA, issued by financial institution(s) acceptable in all respects to EPA equaling the total estimated cost of the Work;
- c. a trust fund administered by a trustee acceptable in all respects to EPA;
- d. a policy of insurance issued by an insurance carrier acceptable in all respects to EPA, which ensures the payment and/or performance of the Work;
- e. a corporate guarantee to perform the Work provided by one or more parent corporations or subsidiaries of Respondents, or by one or more unrelated corporations that have a substantial business relationship with at least one of Respondents; including a demonstration that any such company satisfies the financial test requirements of 40 C.F.R. Part 264.143(f); and/or
- f. a corporate guarantee to perform the Work by one or more of Respondents, including a demonstration that any such Respondent satisfies the requirements of 40 C.F.R. Part 264.143(f).

120. Any and all financial assurance instruments provided pursuant to this Section shall be in form and substance satisfactory to EPA, determined in EPA's sole discretion. In the event that EPA determines at any time that the financial assurances provided pursuant to this Section (including, without limitation, the instrument(s) evidencing such assurances) are inadequate, Respondents shall, within 30 days of receipt of notice of EPA's determination, obtain and present to EPA for approval one of the other forms of financial assurance listed in Paragraph 119, above. In addition, if at any time EPA notifies Respondents that the anticipated cost of completing the Work has increased, then, within 30 days of such notification, Respondents shall obtain and present to EPA for approval a revised form of financial assurance (otherwise acceptable under this Section) that reflects such cost increase. Respondents' inability to demonstrate financial ability to complete the Work shall in no way excuse performance of any activities required under this Settlement Agreement.

121. If Respondents seek to ensure completion of the Work through a guarantee pursuant to Subparagraph 119 e. or 119 f. of this Settlement Agreement, Respondents shall (i) demonstrate

to EPA's satisfaction that the guarantor satisfies the requirements of 40 C.F.R. Part 264.143(f); and (ii) resubmit sworn statements conveying the information required by 40 C.F.R. Part 264.143(f) annually, on the anniversary of the Effective Date, to EPA. For the purposes of this Settlement Agreement, wherever 40 C.F.R. Part 264.143(f) references "sum of current closure and post-closure costs estimates and the current plugging and abandonment costs estimates," the current cost estimate of \$5,000,000 for the Work at the Site shall be used in relevant financial test calculations.

122. If, after the Effective Date, Respondents can show that the estimated cost to complete the remaining Work has diminished below the amount set forth in Paragraph 119 of this Section, Respondents may, on any anniversary date of the Effective Date, or at any other time agreed to by the Parties, reduce the amount of the financial security provided under this Section to the estimated cost of the remaining Work to be performed. Respondents shall submit a proposal for such reduction to EPA, in accordance with the requirements of this Section, and may reduce the amount of the security after receiving written approval from EPA. In the event of a dispute, Respondents may seek dispute resolution pursuant to Section XV (Dispute Resolution). Respondents may reduce the amount of security in accordance with EPA's written decision resolving the dispute.

123. Respondents may change the form of financial assurance provided under this Section at any time, upon notice to and prior written approval by EPA, provided that EPA determines that the new form of assurance meets the requirements of this Section. In the event of a dispute, Respondents may change the form of the financial assurance only in accordance with the written decision resolving the dispute.

XXVII. INTEGRATION/APPENDICES

124. This Settlement Agreement and its appendices and any deliverables, technical memoranda, specifications, schedules, documents, plans, reports (other than progress reports), etc. that will be developed pursuant to this Settlement Agreement and become incorporated into and enforceable under this Settlement Agreement constitute the final, complete and exclusive agreement and understanding among the Parties with respect to the settlement embodied in this Settlement Agreement. The parties acknowledge that there are no representations, agreements or understandings relating to the settlement other than those expressly contained in this Settlement Agreement. The following appendices are attached to and incorporated into this Settlement Agreement:

"Appendix A" is the SOW.

"Appendix B" is the map of the Site.

XXVIII. ADMINISTRATIVE RECORD

125. EPA will determine the contents of the administrative record file for selection of the remedial action. Respondents shall submit to EPA documents developed during the course of the Focused RI/FS upon which selection of the response action may be based. Upon request of

EPA, Respondents shall provide copies of plans, task memoranda for further action, quality assurance memoranda and audits, raw data, field notes, laboratory analytical reports and other reports. Upon request of EPA, Respondents shall additionally submit any previous studies conducted under state, local or other federal authorities relating to selection of the response action, and all communications between Respondents and state, local or other federal authorities concerning selection of the response action. At EPA's discretion, Respondents shall establish a community information repository at or near the Site, to house one copy of the administrative record.

XXIX. EFFECTIVE DATE AND SUBSEQUENT MODIFICATION

126. This Settlement Agreement shall be effective 7 days after the Settlement Agreement is signed by the Regional Administrator or his/her delegatee.

127. This Settlement Agreement may be amended by mutual agreement of EPA and Respondents. Amendments shall be in writing and shall be effective when signed by EPA. EPA Project Coordinators do not have the authority to sign amendments to the Settlement Agreement.

128. No informal advice, guidance, suggestion, or comment by the EPA Project Coordinator or other EPA representatives regarding reports, plans, specifications, schedules, or any other writing submitted by Respondents shall relieve Respondents of their obligation to obtain any formal approval required by this Settlement Agreement, or to comply with all requirements of this Settlement Agreement, unless it is formally modified.

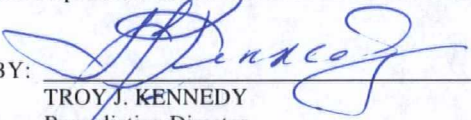
XXX. NOTICE OF COMPLETION OF WORK

129. When EPA determines that all Work has been fully performed in accordance with this Settlement Agreement, with the exception of any continuing obligations required by this Settlement Agreement, including but not limited to payment of Future Response Costs or record retention or recording of deeds, EPA will provide written notice to Respondents. If EPA determines that any such Work has not been completed in accordance with this Settlement Agreement, EPA will notify Respondents, provide a list of the deficiencies, and require that Respondents modify the Focused RI/FS Work Plan if appropriate in order to correct such deficiencies, in accordance with Paragraph 53 (Modification of the Focused RI/FS Work Plan). Failure by Respondents to implement the approved modified Focused RI/FS Work Plan shall be a violation of this Settlement Agreement.

Beck's Lake Site
South Bend, Indiana
Focused RI/FS ASAOC

Agreed this 24th day of September 2015.

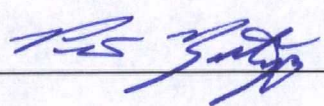
For Respondent: **HONEYWELL INTERNATIONAL INC.**

BY: 
TROY J. KENNEDY
Remediation Director

Beck's Lake Site
South Bend, Indiana
Focused RI/FS ASAOC

Agreed this 29 day of September, 2015.

For Respondent: **CITY OF SOUTH BEND, INDIANA**

By: 
Name

Title: Mayor

Beck's Lake Site
South Bend, Indiana
Focused RI/FS ASAOC

It is so ORDERED AND AGREED this 2 day of Oct., 2015

BY:



 **RICHARD C. KARL**

Director, Superfund Division

U.S. Environmental Protection Agency Region 5

OCT 02 2015

EFFECTIVE DATE: _____

Beck's Lake Site
South Bend, Indiana
Focused RI/FS ASAO

Appendix A

**Statement of Work for LaSalle Park Area of the Beck's Lake Site
Focused Remedial Investigation/Feasibility Study**

**STATEMENT OF WORK
FOR A FOCUSED REMEDIAL INVESTIGATION AND FEASIBILITY STUDY
AT THE BECK'S LAKE SITE
SOUTH BEND, ST. JOSEPH COUNTY, INDIANA**

I. PURPOSE

This Focused Statement of Work (SOW) sets forth the requirements for conducting a Focused Remedial Investigation and Feasibility Study (Focused RI/FS) at the LaSalle Park Area (LPA), of the Beck's Lake National Priorities List Site in South Bend, Indiana (Site). The Beck's Lake Site is located in the vicinity north of Washington Street, south of Linden Avenue, east of Falcon Street, and west of Kaley Street in Portage Township of South Bend and any nearby areas where hazardous substances, pollutants or contaminants from the property or from former operations at the property have been placed, moved around, and managed. This Focused RI/FS is limited to the LPA which once contained one or more dumping areas and now contains a 40-acre park owned by the City of South Bend. The LPA includes, but may not be limited to, Beck's Lake, a sledding hill, soccer and baseball fields, basketball courts, and other recreational facilities. The LPA is generally depicted in the LPA Map which is included as Attachment 1 to this SOW.

The Focused LPA RI Report shall adequately evaluate the nature and extent of hazardous substances, pollutants or contaminants at the LPA. The Focused LPA RI Report shall also assess the risk which these hazardous substances, pollutants or contaminants present for human health and the environment. A primary purpose of a site-wide RI Report is to provide sufficient data to develop and evaluate effective remedial alternatives. However, due to the limited geographical area of this Focused LPA RI, it may not determine the nature and extent of contamination at or from the Site and an additional, expanded site-wide RI may be necessary to fully determine the nature and extent of contamination for the Site. If the LPA RI provides sufficient data to develop and evaluate remedial alternatives for the LPA, then the LPA FS Report shall evaluate alternatives for addressing the impact to human health and the environment from hazardous substances, pollutants or contaminants at the LPA.

The Respondents shall prepare and complete the Focused LPA RI and FS Reports in compliance with the Administrative Settlement Agreement and Order on Consent (AOC), SOW, the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), as amended, the National Oil and Hazardous Substances Pollution Contingency Plan (NCP) (40 C.F.R. Part 300) as amended and all requirements and guidance for RI/FS studies and reports, including but not limited to the United States Environmental Protection Agency (U.S. EPA) Superfund Guidance for Conducting Remedial Investigations and Feasibility Studies Under CERCLA (EPA/540/G-89/004, October 1988) (RI/FS Guidance), and any other guidance that U.S. EPA uses in conducting or submitting deliverables for a RI/FS. Exhibit B sets forth a partial list of guidance used by U.S. EPA for a RI/FS.

The Respondents shall furnish all personnel, materials, and services necessary for, or incidental to, performing the Focused LPA RI/FS at the LPA, except as otherwise specified herein.

II. DOCUMENT REVIEW

The Respondents shall submit all documents or deliverables required as part of this SOW to the U.S. EPA, with a copy to the Indiana Department of Environmental Management (IDEM), for review and approval by U.S. EPA. After review of any plan, report or other item which is required to be submitted for approval pursuant to this AOC, U.S. EPA, after reasonable opportunity for review and comment by IDEM, may: (a) approve, in whole or in part, the submission; (b) approve the submission upon specified conditions; (c) modify the submission to cure the deficiencies; (d) disapprove, in whole or in part, the submission, directing that Respondents modify the submission; or (e) any combination of the above. However, U.S. EPA will not modify a submission without first providing Respondents at least one notice of deficiency and opportunity to cure within 30 days. (See Section X of the AOC for procedures concerning U.S. EPA Approval of Plans and Other Submissions)

III. SCOPE

Respondents shall complete the following tasks as part of this Focused LRA RI/FS:

- Task 1: Project Scoping and Focused RI/FS Planning Documents
- Task 2: Community Relations
- Task 3: LPA Characterization
- Task 4: Focused LPA Remedial Investigation Report
- Task 5: Treatability Studies
- Task 6: Development and Screening of Alternatives (Technical Memorandum)
- Task 7: Detailed Analysis of LPA Alternatives (FS Report)
- Task 8: Progress Reports

TASK 1: PROJECT SCOPING AND FOCUSED RI/FS PLANNING DOCUMENTS

1.1. Site Background

The Respondents shall gather and analyze the existing Site background information and shall conduct a Site visit to assist in planning the scope of the Focused LPA RI/FS.

1.1.1. Collect and Analyze Existing Data

Before planning the Focused LRA RI/FS activities, the Respondents shall thoroughly compile and review all existing Site data. Historical laboratory analytical data (no earlier than data from 2000, assuming laboratory reports are available) shall be submitted electronically according to U.S. EPA Region 5 specifications. Older data shall be compiled and tabulated but is not likely to have enough verifiable information to meet the Region 5 electronic deliverable specifications. Existing site data includes presently available data relating to the varieties and quantities of hazardous substances, pollutants and contaminants at the LPA, past disposal practices, and the results of previous sampling activities. Examples of existing information about the Site includes historical aerial photographs, newspaper reports, city and park department records (e.g. meeting

minutes, relevant budget information, maps, correspondence) and Site investigations included in the Documentation Record of the HRS Scoring Package (June 2013) for the Site.

1.1.2. Conduct Site Visit

The Respondents shall visit the LPA remedial investigation area during the project scoping phase to develop a better understanding of the LPA, and focus on the sources and the areas of contamination, as well as potential exposure pathways and receptors at the LPA. During the LPA visit, the Respondents shall observe, to the extent possible, the Site's physiographic, hydrology, geology, and demographics, as well as natural resource, ecological and cultural features. The Respondents shall coordinate this visit with the U.S. EPA Remedial Project Manager (RPM).

1.2. Focused LPA RI/FS Planning Documents (Work Plan/Field Sampling Plan/QAPP)

1.2.1. General Requirements

Within 90 calendar days after the effective date of the AOC, the Respondents shall submit draft Focused LPA RI/FS Planning Documents (including the Work Plan/Field Sampling Plan, Quality Assurance Project Plan, and Health and Safety Plan) to U.S. EPA, with a copy to IDEM, for review and approval by U.S. EPA.

The objective of the Focused LPA RI/FS Planning Documents is to develop a Focused LPA RI/FS strategy and general management plan that accomplishes the following:

- A remedial investigation that adequately determines the nature and extent of the release or threatened release of hazardous substances, pollutants, or contaminants at the LPA. In performing this investigation, the Respondents shall gather sufficient data, samples, and other information to adequately characterize the nature and extent of the contamination at the LPA, to support human health and ecological risk assessments, to provide sufficient data for the identification and evaluation of remedial alternatives for the LPA. Further, the results of the remedial investigation will support a decision, that if necessary, will expand the scope of the remedial investigation beyond the LPA, to include nearby areas where hazardous substances, pollutants or contaminants from the property or from former operations at the property may have come to be located (including the residential areas).
- A feasibility study that identifies and evaluates alternatives for remedial action to protect human health and the environment by preventing, eliminating, controlling or mitigating the release or threatened release of hazardous substances, pollutants, or contaminants at and from the LPA.

When scoping the specific aspects of the project, the Respondents shall meet with U.S. EPA to discuss all significant project planning decisions and special concerns associated with the Site.

The Focused LPA RI/FS Planning Documents shall include a detailed description of the tasks the

Respondents shall perform, the information needed for each task, a detailed description of the information the Respondents shall produce during and at the conclusion of each task, and a description of the work products that the Respondents shall submit to U.S. EPA and IDEM. This includes the deliverables set forth in this SOW; a schedule for each of the required activities consistent with the RI/FS Guidance and other relevant guidance; and a project management plan including a data management plan (e.g., requirements for project management systems and software, minimum data requirements, requirements for submittal of electronic data, data format and backup data management), monthly reports to U.S. EPA and the state agency, and meetings and presentations to U.S. EPA and the state agency at the conclusion of each major phase of the Focused LPA RI/FS. The Respondents shall refer to Appendix B of the RI/FS Guidance for a description of the required contents of the RI/FS Planning Documents.

The Focused LPA RI/FS Planning Documents shall include the preliminary objectives for the remedial action at the Site; preliminary potential state and federal ARARs (chemical-specific, location-specific and action-specific); a description of the Site management strategy developed by the Respondents and U.S. EPA during scoping; a preliminary identification of remedial alternatives; and data needs for adequately characterizing the nature and extent of the contamination in the LPA, evaluating risks and developing and evaluating remedial alternatives. The Focused LPA RI/FS Planning Documents shall reflect coordination with treatability study requirements, if any. The Focused LPA RI/FS Planning Documents shall also include a process for and manner of refining and/or identifying additional Federal and State ARARs, and for preparing the human health and ecological risk assessments and the feasibility study.

1.2.2. Specific Requirements

The Respondents shall prepare the Focused LPA RI/FS Planning Documents as described in "Guidance for Conducting Remedial Investigations and Feasibility Studies Under CERCLA," dated October, 1988, and/or other guidance documents as appropriate and approved by U.S. EPA, and shall include:

1.2.2.1. Site Background

The Site Background section shall include a brief summary of the Site location, description, physiographic, hydrology, geology, demographics, ecological, cultural and natural resource features, Site history, description of previous investigations and responses conducted at the Site by local, state, federal, or private parties, and Site data evaluations and project planning completed during the scoping process.

The Site background section shall discuss areas of waste handling and disposal activities, and identify all roads for ingress or egress to the dumping area(s), the locations of existing groundwater monitoring wells, if any, and previous surface water, sediment, soil, groundwater, and air sampling locations. The Site Background section shall include a summary description of available data and identify areas where hazardous substances, pollutants or contaminants were detected and the detected levels. This includes, but may not be limited to, historical aerial photographs and Site investigations included in the Documentation Record of the HRS Scoring Package (June 2013) for the Site. The Site Background section shall include tables displaying the

minimum and maximum levels of detected hazardous substances, pollutants or contaminants in Site areas and media.

1.2.2.2. Focused LPA Work Plan/Field Sampling Plan

Respondents shall prepare the Focused LPA Work Plan/Field Sampling Plan (FSP) portion of the Focused LPA RI/FS Planning Documents to ensure that sample collection and analytical activities are conducted in accordance with technically acceptable protocols and that the data meet the Site-specific Data Quality Objectives as established in the Quality Assurance Project Plan (QAPP) and FSP. All sampling and analyses performed shall conform to U.S. EPA direction, approval, and guidance regarding sampling, quality assurance/quality control (QA/QC), data validation, and chain of custody procedures.

The Respondents shall ensure that the laboratory used to perform the analyses participates in a QA/QC program that complies with U.S. EPA guidance.

Upon request by U.S. EPA, the Respondents shall have such a laboratory analyze samples submitted by U.S. EPA for quality assurance monitoring. The Respondents shall provide U.S. EPA with the QA/QC procedures followed by all sampling teams and laboratories performing data collection and/or analysis. The Respondents shall also ensure the provision of analytical tracking information consistent with OSWER Directive No. 9240.0-2B, Extending the Tracking of Analytical Services to PRP-Lead Superfund Sites.

Upon request by U.S. EPA, the Respondents shall allow U.S. EPA or its authorized representatives to take split and/or duplicate samples of any samples collected by the Respondents or their contractors or agents. The Respondents shall notify U.S. EPA not less than 10 business days in advance of any sample collection activity. U.S. EPA shall have the right to take any additional samples that it deems necessary.

1.2.2.3. Data Gap Description/Data Acquisition

As part of the FSP, the Respondents shall analyze the currently available data. The Respondents shall identify those areas of the LPA that require data and evaluation in order to define the extent of hazardous substances, pollutants or contaminants. This Section of the FSP shall include a description of the number, types, and locations of samples to be collected. The FSP shall include an environmental program to accomplish the following:

- **Conduct Site Reconnaissance.** The Respondents shall conduct, as appropriate:
 - Site surveys including property, boundary, utility rights-of-way, and topographic information
 - Land Survey
 - Topographic Mapping
 - Field Screening
 - Historic access and egress roads leading to and from LPA
- **Conduct Geological Investigations (Soils and Sediments).** The Respondents shall

conduct geological investigations to determine the extent of hazardous substances, pollutants or contaminants in surface soils, subsurface soils and sediments within the LPA of the Site. As part of this geological investigation Respondents shall, as appropriate:

- Collect Surface Soil Samples
 - Collect Subsurface Soil Samples
 - Perform Soil Boring and Permeability Sampling
 - Collect Sediment Samples
 - Survey Soil Gases
 - Test Pit
 - Identify real-world horizontal, vertical, and elevation coordinates for all samples and Site features in accordance with U.S. EPA Region 5 electronic data requirements
- Air Investigations. The Respondents shall, conduct air investigations to determine the extent of atmospheric hazardous substances, pollutants or contaminants at and from the Site, which shall include, as appropriate:
 - Collect Air Samples
 - Establish Air Monitoring Station
- Hydrogeological Investigations (Ground Water). The Respondents shall conduct hydrogeological investigations of ground water to determine the horizontal and vertical distribution of hazardous substances, pollutants or contaminants in the groundwater and the extent, fate and transport of any groundwater plumes containing hazardous substances, pollutants or contaminants. The hydrogeological investigation shall include, as appropriate:
 - Install Well Systems
 - Collect Samples from wells within the LPA
 - Collect Samples during Drilling (e.g., HydroPunch or Equivalent)
 - Perform Hydraulic Tests (such as Pump Tests, Slug Tests, borehole tracer tests, and Grain Size Analyses)
 - Measure Ground-Water Elevations and determine horizontal and vertical sample locations in accordance with U.S. EPA Region 5 electronic data requirements
 - Modeling
 - Determine the direction of regional and local groundwater flow
 - Identify the local uses of groundwater including the number, location, depth and use of nearby private and municipal wells
- Conduct Hydrogeological Investigations (Surface Water in the LPA). The Respondents shall conduct hydrogeological investigations to determine the nature and extent of contamination of surface water from the Site. The hydrogeological investigation shall include, as appropriate:
 - Collect Samples
 - Measure Surface-Water Elevation and Depth
 - Evaluate Flow and Hydrodynamics
- Conduct Waste Investigation. The Respondents shall characterize the waste materials at

the Site. Respondent shall conduct the following activities, as appropriate, as part of these waste investigations.

- Collect Samples (Gas, Liquid, Solid)
 - Dispose of Derived Waste (Gas, Liquid, Solid)
- **Conduct Geophysical Investigation.** The Respondents shall conduct geophysical investigations to delineate waste depths, thicknesses and volume; the elevations of the underlying natural soil layer and the extent of cover over fill areas including the following, as appropriate:
 - Magnetometer
 - Electromagnetic
 - Ground-Penetrating Radar
 - Seismic Refraction
 - Resistivity
 - Site Meteorology
 - Cone Penetrometer Survey
 - Remote Sensor Survey
 - Radiological Investigation
 - Test Pits, trenches and soil borings
- **Conduct Ecological Investigation.** The Respondents shall conduct ecological investigations to assess the impact to aquatic and terrestrial ecosystems from the disposal, release and migration of hazardous substances, pollutants or contaminants at the Site including, as appropriate:
 - Wetland and Habitat Delineation
 - Wildlife Observations
 - Community Characterization
 - Endangered Species Identification
 - Biota Sampling and Population Studies
- **Collect Contaminated Building Samples.** The Respondents shall collect contaminated building samples, as appropriate.
- **Dispose of Investigation-Derived Waste.** The Respondents shall characterize and dispose of investigation-derived wastes in accordance with local, state, and federal regulations as specified in the FSP (see the Fact Sheet, Guide to Management of Investigation-Derived Wastes, 9345.3-03FS (January 1992)).
- **Evaluate and Document the Need for Treatability Studies.** If the Respondents or U.S. EPA identify remedial actions that involve treatment, the Respondents shall include treatability studies as outlined in Task 5 of this SOW unless the Respondents satisfactorily demonstrate to U.S. EPA that such studies are not needed. If treatability studies are needed, the Respondents shall plan initial treatability testing activities (such as research and study design) to occur concurrently with LPA characterization activities.

1.2.2.4. Quality Assurance Project Plan (QAPP)

The Respondents shall prepare a QAPP that is site specific and covers sample analysis and data handling for samples collected during the Focused LPA RI, based on the AOC and guidance provided by U.S. EPA. The Respondents shall prepare the QAPP in accordance with "EPA Requirements of Quality Assurance Project Plans (QA/R-5)" (EPA/240/B-01/003, March 2001) and "EPA Guidance for Quality Assurance Project Plans (QA/G-5)" (EPA/600/R-02/009, December 2002) and the Uniform Federal Policy for Quality Assurance Project Plans (UFP-QAPP) Manual (EPA/505/B-04/900A, March 2005) or equivalent documentation as determined by EPA. The QAPP may include Field-Based Analytical Methods, if appropriate and scientifically defensible.

The Respondents shall demonstrate, in advance to U.S. EPA's satisfaction, that each laboratory it may use is qualified to conduct the proposed work. This includes use of methods and analytical protocols for the chemicals of concern in the media sampled within detection and quantification limits consistent with both QA/QC procedures and data quality objectives (DQO) approved in the QAPP for the Site by U.S. EPA. The laboratory must have and follow an approved QA program. If a laboratory not in the Contract Laboratory Program is selected, methods consistent with CLP methods that would be used at this Site for the purposes proposed and QA/QC procedures approved by U.S. EPA shall be used. The Respondents shall only use laboratories which have a documented Quality Assurance Program which complies with ANSI/ASQC E-4 1994, "Specifications and Guidelines for Quality Systems for Environmental Data Collection and Environmental Technology Programs," (American National Standard, January 5, 1995) and "EPA Requirements for Quality Management Plans (QA/R-2)" (EPA/240/B-01-002, March 2001) or equivalent documentation as determined by U.S. EPA.

Upon request by U.S. EPA, the Respondents shall have their laboratory analyze samples submitted by U.S. EPA for quality assurance monitoring. The Respondents shall provide U.S. EPA with the QA/QC procedures followed by all sampling teams and laboratories performing data collection and/or analysis. The Respondents shall also ensure the provision of analytical tracking information consistent with OSWER Directive No. 9240.0-2B, "Extending the Tracking of Analytical Services to PRP-Lead Superfund Sites."

The Respondents shall participate in a pre-QAPP meeting or conference call with U.S. EPA, if requested by U.S. EPA. The purpose of this meeting or conference call is to discuss QAPP requirements and obtain any clarification needed to prepare the QAPP.

1.2.2.4. Health and Safety Plan

The Respondents shall prepare a Health and Safety Plan that conforms to its health and safety program and complies with the Occupational Safety and Health Administration (OSHA) regulations and protocols outlined in 29 C.F.R. Part 1910. The Health and Safety Plan shall be prepared in accordance with U.S. EPA's Standard Operating Safety Guide (PUB 9285.1-03, PB 92-963414, June 1992). The Health and Safety Plan shall include the 11 elements described in the RI/FS Guidance such as a health and safety risk analysis, a description of monitoring and personal protective equipment, medical monitoring, and Site control. U.S. EPA does not

"approve" the Respondents' Health and Safety Plan, but rather U.S. EPA reviews it to ensure that all the necessary elements are included, and that the plan provides for the protection of human health and the environment, and after that review provides comments as may be necessary and appropriate. The safety plan must, at a minimum, follow the U.S. EPA's guidance document Standard Operating Safety Guides (Publication 9285.1-03, PB92-963414, June 1992).

TASK 2: COMMUNITY INVOLVEMENT SUPPORT

U.S. EPA has the responsibility of developing and implementing community involvement activities for the Site. The critical community involvement planning steps performed by U.S. EPA and the state agency include conducting community interviews and developing a Community Involvement Plan. Although implementing the Community Involvement Plan is the responsibility of U.S. EPA, the Respondents, if directed by U.S. EPA, shall assist by providing information regarding the Site's history; participating in public meetings; assisting in preparing fact sheets for distribution to the general public; or conducting other activities approved by U.S. EPA. All PRP-conducted community involvement activities shall be planned and developed in coordination with U.S. EPA.

TASK 3: LPA CHARACTERIZATION

3.1. Investigate and Define Site Physical and Biological Characteristics

The Respondents shall implement the Work Plan/Field Sampling Plan and collect data on the physical and biological characteristics of the LPA and its surrounding areas including the physiography, geology, and hydrology, and specific physical characteristics. This information will be ascertained through a combination of historical data and photographic review, physical measurements, observations, and sampling efforts and will be utilized to define potential transport pathways and human ecological receptor populations. In defining the LPA's physical characteristics the Respondents will also obtain sufficient engineering data (such as hydraulic conductivity) for the projection of contaminant fate and transport, and development and screening of remedial action alternatives, including, if appropriate, information to assess treatment technologies.

The Respondents shall provide the RPM or the entity designated by the RPM with a paper (or PDF) copy and an electronic copy (according to U.S. EPA Region 5 format specification) of laboratory data within the monthly progress reports and in no event later than 45 days after complete laboratory data packages with results are received by the Respondents. In addition, the monthly progress reports will summarize field activities (including drilling locations, depths and field notes if requested by RPM), problems encountered, solutions to problems, and upcoming field activities.

Upon request by U.S. EPA, the Respondents shall allow U.S. EPA or its authorized representatives to take split and/or duplicate samples of any samples collected by the Respondents or their contractors or agents. The Respondents shall notify U.S. EPA not less than 15 business days in advance of any sample collection activity. The U.S. EPA shall have the right to take any

additional samples that it deems necessary.

3.2. Define Sources of Contamination

The Respondents shall locate each source of contamination. For each location, Respondents shall determine the areal extent and depth of contamination, and as appropriate sample at incremental depths on a sampling grid. Respondents shall determine the physical characteristics and chemical constituents and their concentrations for all known and discovered sources of contamination. The Respondents shall conduct sufficient sampling to define the boundaries of the contaminant sources to the level established in the QAPP and DQOs. Defining the source of contamination shall include, as appropriate, analyzing the potential for contaminant release (e.g., long term leaching from soil), contaminant mobility and persistence, and characteristics important for evaluating remedial actions, including information to assess treatment technologies.

3.3. Describe the Nature and Extent/Fate and Transport of LPA Contamination

The Respondents shall gather information to describe the nature and extent of contamination as a final step during the field investigation. To describe the nature and extent of contamination, the Respondents will utilize the information on the LPA's physical and biological characteristics and sources of contamination to give a preliminary estimate of the contaminants that may have migrated. The Respondents will then implement a monitoring program, and any study program identified in the work plan or sampling plan, such that by using analytical techniques sufficient to detect and quantify the concentration of contaminants, the migration, or potential for migration, of contaminants through the various media at the Site can be determined. To the extent practical such programs shall be designed using an iterative approach to maximize the efficiency and effectiveness of the data gathering activities. In addition, the Respondents shall gather data for calculations of contaminant fate and transport. This process is continued until the area and depth of contamination are known to the level of contamination established in the QAPP and DQOs.

3.3.1. Evaluate LPA Characteristics

The Respondents shall analyze and evaluate the data to describe: (1) LPA physical and biological characteristics; (2) contaminant source characteristics; (3) nature and extent of contamination; and (4) contaminant fate and transport. Results of the LPA's physical characteristics, source characteristics, and extent of contamination analyses are utilized in the analysis of contaminant fate and transport. The Respondents shall evaluate the actual and potential magnitude of releases from the sources, and horizontal and vertical spread of contamination as well as mobility and persistence of contaminants. If modeling is appropriate, such models shall be identified to U.S. EPA in a technical memorandum prior to their use. All data and programming, including any proprietary programs, shall be made available to U.S. EPA together with a sensitivity analysis. The RI data shall be presented electronically according to U.S. EPA Region 5 format requirements. Analysis of data collected for Site characterization will meet the DQOs developed in the QAPP and stated in the FSP (or revised during the RI).

3.3.2. Baseline Human Health Risk Assessment

As an attachment to the Focused LPA RI Report, the Respondents shall submit a Baseline Human Health Risk Assessment Report to U.S. EPA, with a copy to IDEM, for review and approval by U.S. EPA. U.S. EPA and the Respondents acknowledge that based on the limited information currently available conditions at the Site may warrant application 1) landfill presumptive remedy or 2) residential soil sampling guidance, which may not require a full baseline human health risk assessment for all or part of the Site. Prior to use of this guidance, the Respondents shall submit for U.S. EPA's approval, a petition justifying their application in planning and implementation of work under this SOW.

The Respondents shall conduct the baseline risk assessment to determine whether LPA contaminants pose a current or potential risk to human health and the environment in the absence of any remedial action. The major components of the Baseline Risk Assessment include contaminant identification, exposure assessment, toxicity assessment, and human health and ecological risk characterization.

Respondents shall conduct a baseline human health risk assessment that focuses on actual and potential risks to persons coming into contact with on-site hazardous substances, pollutants or contaminants as well as risks to the nearby residential, recreational and industrial worker populations from exposure to hazardous substances, pollutants or contaminants in groundwater, soils, sediments, surface water, air, and ingestion of contaminated organisms in nearby, impacted ecosystems. The human health risk assessment shall define central tendency and reasonable maximum estimates of exposure for current land use conditions and reasonable future land use conditions. The human health risk assessment shall use data from the Site and nearby areas to identify the contaminants of concern (COC), provide an estimate of how and to what extent human receptors might be exposed to these COCs, and provide an assessment of the health effects associated with these COCs. The human health risk assessment shall project the potential risk of health problems occurring if no cleanup action is taken at the Site and/or nearby areas, and establish target action levels for COCs (carcinogenic and non-carcinogenic).

Respondents shall conduct the human health risk assessment in accordance with U.S. EPA guidance including, at a minimum: "Risk Assessment Guidance for Superfund (RAGS), Volume I - Human Health Evaluation Manual (Part A)," Interim Final (EPA-540-1-89-002)," OSWER Directive 9285.7-01A; December 1, 1989; and "Risk Assessment Guidance for Superfund (RAGS), Volume I - Human Health Evaluation Manual (Part D, Standardized Planning, Reporting, and Review of Superfund Risk Assessments)," Interim, (EPA 540-R-97-033), OSWER 9285.7-01D, January, 1998 or subsequently issued guidance.

As determined appropriate by U.S. EPA, the Respondents shall also conduct the human health risk assessment in accordance with the following additional guidance found in the following OSWER directives:

- 1) "Clarification to the 1994 Revised Interim Soil Lead Guidance for CERCLA Sites and RCRA Corrective Action Facilities," OSWER Directive 9200.4-27; August, 1998,

- 2) "Implementation of the Risk Assessment Guidance for Superfund (RAGS) Volume I - Human Health Evaluation Manual, (Part D, Standardized Planning, Reporting, and Review of Superfund Risk Assessments) (Interim)," OSWER Directive 9285.7-01D-1; December 17, 1997,
- 3) "Soil Screening Guidance: Technical Background Document," OSWER Directive 9355.4-17A; May 1, 1996 and "Supplemental Guidance for Developing Soil Screening Levels for Superfund Sites, OSWER Directive 9355.4; March 24, 2001,
- 4) "Soil Screening Guidance: User's Guide," Publication 9355.4-23; April, 1996,
- 5) "Revised Interim Soil Lead Guidance for CERCLA Sites and RCRA Corrective Action Facilities," OSWER Directive 9355.4-12; July 14, 1994,
- 6) "Guidance Manual for the Integrated Exposure Uptake Biokinetic (IEUBK) Model for Lead in Children," Publication 9285.7-15-1; February, 1994, and associated, clarifying Short Sheets on IEUBK Model inputs, including but not limited to OSWER 9285.7-32 through 34, as listed on the OSWER lead internet site at <http://www.epa.gov/superfund/health/contaminants/lead/guidance.htm>,
- 7) "Integrated Exposure Uptake Biokinetic (IEUBK) Model for Lead in Children," Version 0.99D, NTIS PB94-501517, 1994 or "Integrated Exposure Uptake Biokinetic (IEUBK) Model for Lead in Children," Windows© version, 2001,
- 8) "Risk Assessment Guidance for Superfund: Volume I - Human Health Evaluation Manual: (Part B, Development of Risk-based Preliminary Remediation Goals)," Interim, OSWER Directive 9285.7-01B; December, 1991,
- 9) "Human Health Evaluation Manual, Supplemental Guidance: Standard Default Exposure Factors," OSWER Directive 9285.6-03; March 25, 1991, and
- 10) "Exposure Factors Handbook," Volumes I, II, and III; August 1997 (EPA/600/P-95/002Fa,b,c).

Respondents shall also comply with the guidance on assessing human health risk associated with adult exposures to lead in soil as found in the following document: "Recommendations of the Technical Review Workgroup for Lead for an Interim Approach to Assessing Risks Associated with Adult Exposures to Lead in Soil," December, 1996. This document may be downloaded from the Internet at the following address:
<http://www.epa.gov/superfund/pubs/rpubs.htm>.

Respondents shall also comply with the "Superfund Lead-Contaminated Residential Sites Handbook," December 2002 by the U.S. EPA Lead Sites Workgroup.

Additional applicable or relevant guidance may be used only if approved by U.S. EPA.

Respondents shall prepare the Human Health Risk Assessment Report according to the guidelines outlined below:

- **Hazard Identification (sources).** The Respondents shall review available information on the hazardous substances present at the Site and identify the major contaminants of concern.
- **Dose-Response Assessment.** The Respondents shall select contaminants of concern based on their intrinsic toxicological properties.
- **Conceptual Exposure/Pathway Analysis.** The Respondents shall identify and analyze critical exposure pathways (e.g., drinking water). The proximity of contaminants to exposure pathways and their potential to migrate into critical exposure pathways shall be assessed.
- **Characterization of Site and Potential Receptors.** The Respondents shall identify and characterize human populations in the exposure pathways.
- **Exposure Assessment.** The exposure assessment will identify the magnitude of actual or potential human exposures, the frequency and duration of these exposures, and the routes by which receptors are exposed. The exposure assessment shall include an evaluation of the likelihood of such exposures occurring and shall provide the basis for the development of acceptable exposure levels. In developing the exposure assessment, the Respondents shall develop reasonable maximum estimates of exposure for both current land use conditions and potential land use conditions at the Site.
- **Risk Characterization.** During risk characterization, Respondents shall compare chemical-specific toxicity information, combined with quantitative and qualitative information from the exposure assessment, to measured levels of contaminant exposure levels and the levels predicted through environmental fate and transport modeling. These comparisons shall determine whether concentrations of contaminants at or near the Site are affecting or could potentially affect human health.
- **Identification of Limitations/Uncertainties.** The Respondents shall identify critical assumptions (e.g., background concentrations and conditions) and uncertainties in the report.
- **Site Conceptual Model.** Based on contaminant identification, exposure assessment, toxicity assessment, and risk characterization, the Respondents shall develop a conceptual model of the Site.

3.3.2. Baseline Ecological Risk Assessment

As an attachment to the Focused LPA RI Report, the Respondents shall submit a Baseline Ecological Risk Assessment Report to U.S. EPA, with a copy to IDEM, for review and approval by U.S. EPA. In the Ecological Risk Assessment Report, the Respondents shall evaluate and assess the risk to the environment posed by site contaminants. Respondents shall prepare the Ecological Risk Assessment Report in accordance with U.S. EPA guidance including, at a minimum: "Ecological Risk Assessment Guidance for Superfund, Process for Designing and Conducting Ecological Risk Assessments, (EPA-540-R-97-006, June 1997), OSWER Directive 9285.7-25. The June 1997 document allows for initial completion of a screening level Ecological Risk Assessment, with options to stop at that point if warranted (Exhibit I-2). The Ecological Risk Assessment shall follow the guidelines outlined below:

- **Hazard Identification (sources).** The Respondents shall review available information on the hazardous substances present at the Site and identify the major contaminants of concern.
- **Dose-Response Assessment.** The Respondents must select contaminants of concern based on their intrinsic toxicological properties.
- **Conceptual Exposure/Pathway Analysis.** Critical exposure pathways (e.g., surface water) shall be identified and analyzed. The proximity of contaminants to exposure pathways and their potential to migrate into critical exposure pathways shall be assessed.
- **Characterization of Site and Potential Receptors.** The Respondents shall identify and characterize environmental exposure pathways.
- **Selection of Chemicals, Indicator Species, and End Points.** In preparing the assessment, the Respondents will select representative chemicals, indicator species (species that are especially sensitive to environmental contaminants), and end points on which to concentrate.
- **Exposure Assessment.** In the exposure assessment, Respondents must identify the magnitude of actual or environmental exposures, the frequency and duration of these exposures, and the routes by which receptors are exposed. The exposure assessment shall include an evaluation of the likelihood of such exposures occurring and shall provide the basis for the development of acceptable exposure levels. In developing the exposure assessment, the Respondents shall develop reasonable maximum estimates of exposure for both current land use conditions and potential land use conditions at the Site.
- **Toxicity Assessment/Ecological Effects Assessment.** The toxicity and ecological effects assessment will address the types of adverse environmental effects associated with chemical exposures, the relationships between magnitude of exposures and adverse effects, and the related uncertainties for contaminant toxicity (e.g., weight of evidence for a chemical's carcinogenicity).
- **Risk Characterization.** During risk characterization, Respondents shall compare chemical-specific toxicity information, combined with quantitative and qualitative information from the exposure assessment, to measured levels of contaminant exposure levels and the levels predicted through environmental fate and transport modeling. These comparisons shall determine whether concentrations of contaminants at or near the Site are affecting or could potentially affect the environment.
- **Identification of Limitations/Uncertainties.** The Respondents shall identify critical assumptions (e.g., background concentrations and conditions) and uncertainties in the report.
- **Site Conceptual Model.** Based on contaminant identification, exposure assessment, toxicity assessment, and risk characterization, the Respondents shall develop a conceptual model of the Site.

3.4. Current and Future Land Uses and Reuse Assessment

As an Attachment to the Focused LPA RI Report, Respondents shall submit a Memorandum to U.S. EPA for review and approval that evaluates the current and reasonably anticipated future land uses at the Site. The Memorandum shall identify: 1) past uses at the Site including title and lien information; 2) current uses of the LPA and neighboring areas; 3) the owner's plans, if any,

for the Site following cleanup and any prospective purchasers; 4) applicable zoning laws and ordinance; 5) current zoning; 6) applicable local area land use plans, master plans and how they affect the Site; 7) existing local restrictions on property; 8) property boundaries; 9) groundwater use determinations, wellhead protection areas, recharge areas and other areas identified in the state's Comprehensive Ground Water Protection Program; 10) Flood plains, wetland, or endangered or threatened species; and 11) utility rights of way.

If U.S. EPA, in its sole discretion, determines that a Reuse Assessment is necessary, Respondents will perform the Reuse Assessment in accordance with U.S. EPA guidance, including, but not limited to: "Reuse Assessments: A Tool To Implement The Superfund Land Use Directive, OSWER 9355.7-06P, June 4, 2001 upon request of U.S. EPA. The Reuse Assessment should provide sufficient information to develop realistic assumptions of the reasonably anticipated future uses for the Site.

TASK 4: FOCUSED LPA REMEDIAL INVESTIGATION (RI) REPORT

Within 90 calendar days following receipt of the last set of analytical data collected as part of the Focused LPA RI or unless otherwise approved by U.S. EPA, the Respondents shall submit to U.S. EPA, with a copy to IDEM, for review and approval by U.S. EPA, a Focused LPA RI Report addressing all of the Site and nearby areas. The Focused LPA RI Report shall be consistent with the AOC and this SOW. The Focused LPA RI Report shall accurately establish the LPA characteristics such as media contaminated, extent of contamination, and, to the extent the physical boundaries are contained within the LPA, the physical boundaries of the contamination. Pursuant to this objective, the Respondents shall obtain only the essential amount of detailed data necessary to determine the key(s) contaminant(s) movement and extent of contamination. The key contaminant(s) must be selected based on persistence and mobility in the environment and the degree of hazard. The key contaminant(s) identified in the Focused LPA RI shall be evaluated for receptor exposure and an estimate of the key contaminant(s) level reaching human or environmental receptors must be made. The Respondents shall use existing standards and guidelines such as drinking-water standards, water-quality criteria, and other criteria accepted by the U.S. EPA as appropriate for the situation may be used to evaluate effects on human receptors who may be exposed to the key contaminant(s) above appropriate standards or guidelines. Respondents shall complete the Focused LPA RI Report in accordance with the following requirements:

The Respondents shall submit a Focused LPA RI Report to U.S. EPA for review and approval which includes the following:

- Executive Summary
- LPA Background. The Respondents shall assemble and review available facts about the regional conditions and conditions specific to the Site under investigation.
- Investigation (as applicable)
 - Site Reconnaissance
 - Field Investigation & Technical Approach
 - Chemical Analysis & Analytical Methods
 - Field Methodologies

- Biological
- Surface Water
- Sediment
- Soil Boring
- Soil Sampling
- Monitoring Well Installation
- Groundwater Sampling
- Hydrogeological Assessment
- Air Sampling
- Waste Investigation
- Geophysical Investigation
- LPA Characteristics (as applicable)
 - Geology
 - Hydrogeology
 - Meteorology
 - Demographics and Land Use
 - Ecological Assessment
 - Hydrodynamics
- Nature and Extent of Contamination
 - Contaminant Sources
 - Contaminant Distribution and Trends
- Fate and Transport
 - Contaminant Characteristics
 - Transport Processes
 - Contaminant Migration Trends
- Human Risk Assessment
 - Hazard Identification (sources)
 - Dose-Response Assessment
 - Prepare Conceptual Exposure/Pathway Analysis
 - Characterization of Site and Potential Receptors
 - Exposure Assessment
 - Risk Characterization
 - Identification of Limitations/Uncertainties
 - Site Conceptual Model
- Ecological Risk Assessment
 - Hazard Identification (sources)
 - Dose-Response Assessment
 - Prepare Conceptual Exposure/Pathway Analysis
 - Characterization of Site and Potential Receptors
 - Selection of Chemicals, Indicator Species, and End Points
 - Exposure Assessment

- Toxicity Assessment/Ecological Effects Assessment
 - Risk Characterization
 - Identification of Limitations/Uncertainties
 - Site Conceptual Model
- Remedial Action Objectives
 - Summary and Conclusions

TASK 5: TREATABILITY STUDIES

If U.S. EPA determines, or the Respondents determine and U.S. EPA approves, that treatability testing is necessary, the Respondents shall conduct treatability studies as described in this Task 5 of this SOW. In addition, if applicable, the Respondents shall use the testing results and operating conditions in the detailed design of the selected remedial technology. The Respondents shall perform the following activities.

5.1. Determine Candidate Technologies and of the Need for Testing

The Respondents shall submit a Candidate Technologies and Testing Needs Technical Memorandum, to U.S. EPA, with a copy to IDEM, for review and approval by U.S. EPA, that identifies candidate technologies for a treatability studies program no later than at the time of submittal of the draft Focused LPA RI Report. The list of candidate technologies shall cover the range of technologies required for alternatives analysis. The Respondents shall determine and refine the specific data requirements for the testing program during Site characterization and the development and screening of remedial alternatives.

5.1.1. Conduct Literature Survey and Determine the Need for Treatability Testing

Within the Candidate Technologies and Testing Needs Technical Memorandum, the Respondents shall conduct a literature survey to gather information on the performance, relative costs, applicability, removal efficiencies, operation and maintenance (O&M) requirements, and implementability of candidate technologies. Respondents shall conduct treatability studies except where Respondents can demonstrate to U.S. EPA's satisfaction that they are not needed.

5.2. Treatability Testing and Deliverables

5.2.1. Treatability Testing Work Plan and Sampling and Analysis Plan (SAP)

If U.S. EPA determines that treatability testing is necessary, the Respondents shall propose to U.S. EPA the type of treatability testing to use (e.g., bench versus pilot). However, EPA reserves the right to direct the Respondents to perform treatability testing it determines to be appropriate and necessary. Within 45 days of a request of U.S. EPA, the Respondents shall submit a Treatability Testing Work Plan and a SAP, or amendments to the original Focused LPA RI/FS Work Plan, FSP and QAPP to U.S. EPA, with a copy to IDEM, for review and approval by U.S. EPA, that describes the Site background, the remedial technology(ies) to be tested, test objectives, experimental procedures, treatability conditions to be tested, measurements of

performance, analytical methods, data management and analysis, health and safety, and residual waste management. The Respondents shall document the DQOs for treatability testing as well.

If pilot scale treatability testing is to be performed, the Treatability Study Work Plan shall describe pilot plant or testing installation and start-up, pilot plant or testing operation and maintenance procedures, operating conditions to be tested, a sampling plan to determine pilot plant or testing performance, and a detailed health and safety plan (or amendment to existing health and safety plan). If testing is to be performed off-Site, the plans shall address all permitting requirements. The requirements of SAPs are outlined in Task 1.2.2 of this SOW.

5.2.2. Treatability Study Health and Safety Plan

If the original Health and Safety Plan is not adequate for defining the activities to be performed during the treatability tests, the Respondents shall submit a separate or amended Health and Safety Plan. Task 1.2.2 of this SOW provides additional information on the requirements of the Health and Safety Plan. U.S. EPA reviews, but does not "approve" the Treatability Study Health and Safety Plan.

5.2.3. Treatability Study Evaluation Report

Following the completion of the treatability testing, the Respondents shall analyze and interpret the testing results in a technical report to U.S. EPA and IDEM. Respondents shall submit the treatability study report according to the schedule in the Treatability Study Work Plan.

This report may be a part of the Site Characterization Technical Memorandum, the Focused LPA RI Report or submitted as a separate deliverable. The Treatability Study Evaluation Report shall evaluate each technology's effectiveness; implement ability and estimated cost, and actual results as compared with predicted results. The report shall also evaluate the potential for full scale application of the technology, including a sensitivity analysis identifying the key parameters affecting full-scale operation.

TASK 6: DEVELOPMENT AND SCREENING OF ALTERNATIVES (Technical Memorandum)

The Respondents shall develop and screen an appropriate range of remedial alternatives that will be evaluated by the Respondents. This range of alternatives shall include, as appropriate, options in which treatment is used to reduce the toxicity, mobility, or volume of wastes, but which vary in the types of treatment, the amount treated, and the manner in which long-term residuals or untreated wastes are managed; options involving containment with little or no treatment; options involving both treatment and containment; and a no-action alternative. The Respondents shall perform the following activities as a function of the development and screening of remedial alternatives.

6.1. Alternatives Development and Screening Deliverables

The Respondents shall develop and screen alternatives. Remedial action objectives will be prepared as a section of the Focused LPA RI Report. Unless otherwise agreed to, the

Respondents shall prepare and submit to U.S. EPA an Alternative Screening Technical Memorandum and a Comparative Analysis of Alternatives Memorandum.

6.1.1. Remedial Action Objectives Technical Memorandum

The Respondents shall include a section on Remedial Action Objectives in the Focused LPA RI for review and approval by U.S. EPA. Based on the baseline human health and ecological risk assessments, the Respondents shall document the LPA-specific remedial action. The remedial action objectives shall specify the contaminants and media of concern, potential exposure pathways and receptors; and contaminant level or range of levels (at particular locations for each exposure route) that are protective of human health and the environment. Remedial action objectives shall be developed by considering the factors set forth in 40 C.F.R. § 300.430(e)(2)(i). The Respondents shall incorporate U.S. EPA's comments on the remedial action objectives in Alternative Screening Technical Memorandum.

6.1.2. Alternatives Screening Technical Memorandum

The Respondents shall submit an Alternatives Screening Technical Memorandum to U.S. EPA, with a copy to IDEM, for review and approval by U.S. EPA. The Alternatives Screening Technical Memorandum shall summarize the work performed and the results of each of the above tasks, and shall include an alternatives array summary. If required by U.S. EPA, the Respondents shall modify the alternatives array to assure that the array identifies a complete and appropriate range of viable alternatives to be considered in the detailed analysis. The Alternatives Screening Technical Memorandum shall document the methods, the rationale and the results of the alternatives screening process. The Respondents shall incorporate U.S. EPA's comments on the Alternatives Screening Technical Memorandum into the Comparative Analysis of Alternatives Technical Memorandum, if required. If the Comparative Analysis of Alternatives Technical Memorandum is not required the comments will be incorporated into the draft Feasibility Study Report including the comparative analysis of alternatives. The Respondents shall submit the Alternatives Screening Technical Memorandum within 45 calendar days after receipt of U.S. EPA's comments on the Remedial Action Objectives Technical Memorandum.

6.1.2.1. Develop General Response Actions

In the Alternatives Screening Technical Memorandum, the Respondents shall develop general response actions for each medium of interest including options such as containment, treatment, excavation, pumping, or other actions, singly or in combination, to satisfy the U.S. EPA-approved remedial action objectives.

6.1.2.2. Identify Areas or Volumes of Media

In the Alternatives Screening Technical Memorandum, the Respondents shall identify areas or volumes of media to which the general response actions may apply, taking into account requirements for protectiveness as identified in the remedial action objectives. The Respondents shall also take into account the chemical and physical characterization of the Site.

6.1.2.3. Identify, Screen, and Document Remedial Technologies

In the Alternatives Screening Technical Memorandum, the Respondents shall identify and evaluate technologies applicable to each general response action to eliminate those that cannot be implemented at the Site. The Respondents shall refine applicable general response actions to specify remedial technology types. The Respondents shall identify technology process options for each of the technology types concurrently with the identification of such technology types or following the screening of considered technology types. The Respondents shall evaluate process options on the basis of effectiveness, implement ability, and cost factors to select and retain one or, if necessary, more representative processes for each technology type. The Respondents shall summarize and include the technology types and process options in the Alternatives Screening Technical Memorandum. Whenever practicable, the alternatives shall also consider the CERCLA preference for treatment over conventional containment or land disposal approaches.

In the Alternatives Technical Memorandum, Respondents shall provide a preliminary list of alternatives to address contaminated waste, soil, sediments, surface water, groundwater, and air contamination at the Site that shall consist of, but is not limited to, treatment technologies, removal and off-site treatment/disposal, removal and on-site disposal, and in-place containment for soils, sediments, and wastes. See 40 C.F.R. § 300.430(e)(1)-(7). The Respondents shall specify the reasons for eliminating any alternatives.

6.1.2.4. Assemble and Document Alternatives

The Respondents shall assemble the selected representative technologies into alternatives for each affected medium or operable unit. Together, all of the alternatives shall represent a range of treatment and containment combinations that shall address either the Site or the operable unit as a whole. The Respondents shall prepare a summary of the assembled alternatives and their related ARARs for the Alternatives Screening Technical Memorandum. The Respondents shall specify the reasons for eliminating alternatives during the preliminary screening process.

6.1.2.5. Refine Alternatives

The Respondents shall refine the remedial alternatives to identify the volumes of contaminated media addressed by the proposed processes and size critical unit operations as necessary. The Respondents shall collect sufficient information for an adequate comparison of alternatives. The Respondents shall also modify the remedial action objectives for each chemical in each medium as necessary to incorporate any new human health and ecological risk assessment information presented in the Respondents' baseline human health and ecological risk assessment reports. Additionally, the Respondents shall update ARARs as the remedial alternatives are refined.

6.1.3. Conduct and Document Screening Evaluation of Each Alternative

The Respondents may perform a final screening process based on short and long term aspects of effectiveness, implement ability, and relative cost. Generally, this screening process is only necessary when there are many feasible alternatives available for a detailed analysis. If necessary, the Respondents shall conduct the screening of alternatives to assure that only the

alternatives with the most favorable composite evaluation of all factors are retained for further analysis. As appropriate, the screening shall preserve the range of treatment and containment alternatives that was initially developed. The range of remaining alternatives shall include options that use treatment technologies and permanent solutions to the maximum extent practicable. The Respondents shall prepare an Alternatives Screening Technical Memorandum that summarizes the results and reasoning employed in screening; arrays the alternatives that remain after screening; and identifies the action-specific ARARs for the alternatives that remain after screening.

TASK 7: DETAILED ANALYSIS of ALTERNATIVES (LPA FS REPORT)

The Respondents shall conduct and present a detailed analysis of remedial alternatives to provide U.S. EPA with the information needed to select a Site remedy.

7.1. Detailed Analysis of Alternatives

The Respondents shall conduct a detailed analysis of the remedial alternatives for the Site. The detailed analysis shall include an analysis of each remedial option against each of the nine evaluation criteria set forth in 40 C.F.R. § 300.430(e)(9)(iii) and a comparative analysis of all options using the same nine criteria as a basis for comparison.

7.1.1. Apply Nine Criteria and Document Analysis

The Respondents shall apply the nine evaluation criteria to the assembled remedial alternatives to ensure that the selected remedial alternative will protect human health and the environment and meet remedial action objectives; will comply with, or include a waiver of, ARARs; will be cost-effective; will utilize permanent solutions and alternative treatment technologies, or resource recovery technologies, to the maximum extent practicable; and will address the statutory preference for treatment as a principal element. The evaluation criteria include: (1) overall protection of human health and the environment and how the alternative meets each of the remedial action objectives; (2) compliance with ARARs; (3) long-term effectiveness and permanence; (4) reduction of toxicity, mobility, or volume; (5) short-term effectiveness; (6) implement ability; (7) cost; (8) state (or support agency) acceptance; and (9) community acceptance. (Note: criteria 8 and 9 are considered after the Focused LPA RI/FS report has been released to the general public.) For each alternative the Respondents shall provide: (1) a description of the alternative that outlines the waste management strategy involved and identifies the key ARARs associated with each alternative, and (2) a discussion of the individual criterion assessment. If the Respondents do not have direct input on criteria (8) state (or support agency) acceptance and (9) community acceptance, U.S. EPA will address these criteria.

7.1.2. Compare Alternatives Against Each Other and Document the Comparison of Alternatives

The Respondents shall perform a comparative analysis between the remedial alternatives and incorporate it into a section of the FS Report. That is, the Respondents shall compare each alternative against the other alternatives using the evaluation criteria as a basis for comparison.

U.S. EPA will identify and select the preferred alternative. Unless otherwise agreed to, the Respondents shall prepare a Comparative Analysis of Alternatives Technical Memorandum which summarizes the results of the comparative analysis and fully and satisfactorily addresses and incorporates U.S. EPA's comments on the Alternatives Screening Technical Memorandum. The Respondents shall incorporate U.S. EPA's comments on the Comparative Analysis of Alternatives Technical Memorandum in the draft FS Report. Unless otherwise agreed, the Respondents shall submit the Comparative Analysis of Alternatives Memorandum within 60 calendar days after receipt of U.S. EPA's comments on the Alternatives Screening Technical Memorandum.

7.1.3. Alternatives Analysis for LPA Institutional Controls

For any Alternatives that relies on Institutional Controls, Respondents shall include in the Alternatives Screening Technical Memorandum, Comparative Analysis of Alternative Technical Memorandum and Feasibility Study an evaluation of the following: 1) Overall Protection of Human Health and the Environment including what specific institutional control components will ensure that the alternative will remain protective and how these specific controls will meet remedial action objectives; 2) Compliance with ARARs; 3) Long Term Effectiveness including the adequacy and reliability of institutional controls and how long the institutional control must remain in place; 4) Short Term Effectiveness including the amount of time it will take to impose the Institutional Control; 5) Implement ability including research and documentation that the proper entities (e.g., potentially responsible parties, state, local government entities, local landowners conservation organizations) are willing to enter into any necessary agreement or restrictive covenant with the proper entities and/or that laws governing the restriction exist or allow implementation of the institutional control; 6) Cost including the cost to implement, maintain, monitor and enforce the institutional control; 7) State and Community acceptance of the Institutional Control.

7.2. LPA Feasibility Study Report

Within 60 days after receipt of U.S. EPA's comments on the Comparative Analysis of Alternatives Technical Memorandum, the Respondents shall prepare and submit a draft FS Report to U.S. EPA for its review pursuant to Section 2. If the Comparative Analysis of Alternatives Technical Memorandum is not required by U.S. EPA, the Respondents shall prepare and submit a draft FS Report to U.S. EPA for its review within 90 days after receipt of U.S. EPA's comments on the Alternative Screening Technical Memorandum, pursuant to Section 2. The FS report shall summarize the development and screening of the remedial alternatives and present the detailed analysis of remedial alternatives. In addition, the FS Report shall also include the information U.S. EPA will need to prepare relevant sections of the Record of Decision (ROD) for the Site [see Chapters 6 and 9 of U.S. EPA's, "A Guide to Preparing Superfund Proposed Plans, Records of Decision, and Other Remedy Selection Decision Documents" (EPA 540-R-98-031, July 1999) for the information that is needed].

TASK 8: PROGRESS REPORTS

The Respondents shall submit monthly written progress reports to U.S. EPA and IDEM

concerning actions undertaken pursuant to the AOC and this SOW, beginning 30 calendar days after the effective date of the AOC, until the termination of the AOC, unless otherwise directed in writing by the RPM. These reports shall include, but not be limited to, a description of all significant developments during the preceding period, including the specific work that was performed and any problems that were encountered; paper (or PDF) and electronic copies (within the progress report, or separately, formatted according to U.S. EPA specifications) and summary of the analytical data that was received during the reporting period; and the developments anticipated during the next reporting period, including a schedule of work to be performed, anticipated problems, and actual or planned resolutions of past or anticipated problems. The monthly progress reports will summarize the field activities conducted each month including, but not limited to drilling and sample locations, depths and descriptions; boring logs; sample collection logs; field notes; problems encountered; solutions to problems; a description of any modifications to the procedures outlined in the Focused LPA RI/FS Work Plan, the FSP, QAPP or Health and Safety Plan, with justifications for the modifications; a summary of all data received (following data validation) during the reporting period and the analytical results; and upcoming field activities. In addition, the Respondents shall provide the RPM or the entity designated by the RPM with all laboratory data within the monthly progress reports (or submitted separately) and in no event later than 45 days after complete laboratory data packages with results are received by the Respondents.

EXHIBIT A
SCHEDULE FOR MAJOR DELIVERABLES

DELIVERABLE	DUE DATE
Task 1.2.2 – Focused LPA RI/FS Planning Documents, including Work Plan/Field Sampling Plan, Quality Assurance Project Plan and Health and Safety Plan	<p>Focused LPA RI/FS Planning documents due 90 calendar days after the effective date of the AOC.</p> <p>Final Focused LPA RI/FS Planning Documents due 30 days after U.S. EPA notification of deficiencies pursuant to Section</p>
Task 2 – Community Involvement Support	To be included as a section in the monthly progress reports.
Task 3 - LPA Characterization Technical Communications	To be included in the monthly Progress Reports.
Task 4 – Focused LPA RI Report	<p>Draft Focused LPA RI Report due 90 calendar days following receipt of the last set of analytical data collected as part of the Focused LPA RI.</p> <p>Final Focused LPA RI Report due 30 calendar days after receipt of U.S. EPA's notification of deficiencies pursuant to Section 2 of this</p>
Task 5.1 - Candidate Technologies and Testing Needs Technical Memorandum	With the Draft Focused LPA RI Report, if needed (Task 4)
Task 5.2.1 - Draft and Final Treatability Testing Work Plan and SAP or Amendments to the Original Focused LPA RI/FS Work Plan, FSP and/or QAPP.	Within 45 days of request of U.S. EPA.
Task 5.2.2 - Draft and Final Treatability Testing Health and Safety Plan or Amendment to the Original Health and Safety Plan	Within 45 days of request of U.S. EPA.

DELIVERABLE	DUE DATE
Task 5.2.3 - Draft and Final Treatability Study Evaluation Report	With the Focused LPA RI Report (Task 4), or as approved by U.S. EPA in the Final Treatability Testing Work Plan/Field Sampling Plan.
Task 6 - Remedial Action Objectives Technical Memorandum	With the draft Focused LPA RI Report (Task 4).
Task 6 - Alternatives Screening Technical Memorandum	30 calendar days after receipt of U.S. EPA's comments on the Remedial Action Objectives Technical Memorandum.
Task 6 - Comparative Analysis of Alternatives Technical Memorandum	If required, 60 calendar days after receipt of U.S. EPA's comments on the Alternatives Screening Technical Memorandum.
Task 7 – LPA FS Report	Draft FS Report due 60 calendar days after receipt of U.S. EPA's comments on the Comparative Analysis of Alternatives Technical Memorandum. If the Comparative Analysis of Alternatives Technical Memorandum is not required by U.S. EPA, the Respondents shall prepare and submit a draft FS Report to U.S. EPA for its review within 90 days after receipt of U.S. EPA's comments on the Alternative Screening Technical Memorandum. Final FS Report due 30 calendar days after receipt of U.S. EPA's notification of deficiency on the draft FS Report pursuant to Section 2 of the SOW and Section X of the AOC.
Task 8 - Monthly Progress Reports	On the 15 th day of each month or the first business day after the 15 th of the month commencing 30 calendar days after the effective date of the AOC.

EXHIBIT B

PARTIAL LIST OF GUIDANCE

The following list, although not comprehensive, comprises many of the regulations and guidance documents that apply to the RI/FS process. The majority of these guidance documents, and additional applicable guidance documents, may be downloaded from the following websites:

<http://www.epa.gov/superfund/pubs.htm> (General Superfund)
<http://clu.in.org> (Site Characterization, Monitoring and Remediation)
<http://www.epa.gov/nrmrl/publications.html> (Site Characterization and Monitoring)
http://www.epa.gov/quality/qa_docs.html (Quality Assurance)
<http://www.epa.gov/superfund/programs/dfa/> (Dynamic Field Activities)
http://www.epa.gov/superfund/health/human_health.htm (Risk Assessment - Human)
<http://www.epa.gov/superfund/programs/nrd/era.htm> (Ecological Risk Assessment)
<http://www.epa.gov/superfund/health/contaminants/lead/index.htm> (Risk Assessment - Lead)
<http://www.epa.gov/ncea/> (Risk Assessment - Exposure Factors/Other)
<http://nepis.epa.gov/> (General Publications Clearinghouse)
<http://www.epa.gov/fedfac/documents/qualityassurance.htm> (UFP Manual and Examples)

1. The (revised) National Contingency Plan;
2. Guidance for Conducting Remedial Investigations and Feasibility Studies Under CERCLA, U.S. EPA, Office of Emergency and Remedial Response, OSWER Directive No. 9355.3-01, EPA/540/G-89/004, October 1988.
3. Conducting Remedial Investigations/Feasibility Studies for CERCLA Municipal Landfill Sites, U.S. EPA, Office of Emergency and Remedial Response, EPA/540/P-91/001, February 1991.
4. Implementing Presumptive Remedies, U.S. EPA, Office of Emergency and Remedial Response, EPA-540-R-97-029, October 1997.
5. Presumptive Remedy for CERCLA Municipal Landfill Sites, U.S. EPA, OSWER Directive No. 9355.0-49FS, EPA-540-F-93-035, September 1993.
6. Presumptive Remedies: CERCLA Landfill Caps RI/FS Data Collection Guide, U.S. EPA, OSWER 9355.3-18FS, EPA/540/F-95/009, August 1995.
7. Presumptive Response Strategy and Ex-Situ Treatment Technologies for Contaminated Ground Water at CERCLA Sites, OSWER 9283.1-12, EPA-540-R-96-023, October 1996.
8. Field Analytical and Site Characterization Technologies Summary of Applications, U.S. EPA, EPA-542-F-97-024, November 1997.
9. CLU-IN Hazardous Waste Clean-Up Information World Wide Web Site, U.S. EPA, EPA-542-F-99-002, February 1999.

10. **Field Sampling and Analysis Technology Matrix and Reference Guide, U.S. EPA, EPA-542-F-98-013, July 1998.**
11. **Subsurface Characterization and Monitoring Techniques: A Desk Reference Guide, Volumes 1 and 2, U.S. EPA, EPA/625/R-93/003, May 1993.**
12. **Use of Airborne, Surface, and Borehole Geophysical Techniques at Contaminated Sites: A Reference Guide, U.S. EPA, EPA/625/R-92/007(a,b), September 1993.**
13. **Innovations in Site Characterization: Geophysical Investigation at Hazardous Waste Sites, U.S. EPA, EPA-542-R-00-003, August 2000.**
14. **Innovative Remediation and Site Characterization Technology Resources, U.S. EPA, OSWER, EPA-542-F-01-026b, January 2001.**
15. **Handbook of Suggested Practices for the Design and Installation of Ground-Water Monitoring Wells, U.S. EPA, EPA/600/4-89/034, 1991.**
16. **Ground Water Sampling Guidelines for Superfund and RCRA Project Managers, U.S. EPA, EPA-542-S-02-001, May 2002.**
17. **Ground Water Issue: Low-Flow (Minimal Drawdown) Ground- Water Sampling Procedures, U.S. EPA, EPA/540/S-95/504, April 1996.**
18. **Superfund Ground Water Issue: Ground Water Sampling for Metals Analysis, U.S. EPA, EPA-540-4-89-001, March 1989.**
19. **Resources for Strategic Site Investigation and Monitoring, U.S. EPA, OSWER, EPA-542-F-010030b, September 2001.**
20. **Region 5 Framework for Monitored Natural Attenuation Decisions for Groundwater, U.S. EPA Region 5, September 2000.**
21. **Ground Water Issue: Suggested Operating Procedures for Aquifer Pumping Tests, U.S. EPA, OSWER, EPA/540/S-93/503, February 1993.**
22. **Technical Protocol for Evaluating Natural Attenuation of Chlorinated Solvents in Ground Water, U.S. EPA, EPA/600/R-98/128, September 1998.**
23. **Use of Monitored Natural Attenuation at Superfund, RCRA Corrective Action and Underground Storage Tank Sites, U.S. EPA, OSWER Directive 9200.4-17P, April 21, 1999.**

24. Ground Water Issue: Fundamentals of Ground-Water Modeling, U.S. EPA, OSWER, EP/V540/S-92/005, April 1992.
25. Assessment Framework for Ground-Water Model Applications, U.S. EPA, OSWER Directive #9029.00, EPA-500-B-94-003, July 1994.
26. Ground-Water Modeling Compendium - Second Edition: Model Fact Sheets, Descriptions, Applications and Cost Guidelines, U.S. EPA, EPA-500-B-94-004, July 1994.
27. A Guide to Preparing Superfund Proposed Plans, Records of Decision, and Other Remedy Selection Decision Documents, U.S. EPA, Office of Solid Waste and Emergency Response, OSWER Directive No. 9200.1-23P, U.S. EPA 540-R-98-031, July 1999.
28. Region 5 Instructions on the Preparation of a Superfund Division Quality Assurance Project Plan Based on U.S. EPA QA/R-5, Revision 0, U.S. EPA Region 5, June 2000.
29. Guidance for the Data Quality Objectives Process (QA-G-4), U.S. EPA, EPA/600/R-96/055, August 2000.
30. Guidance for Data Quality Objectives Process (QA-G-4) U.S. EPA, EPA/600/R-96/055, August 2000.
31. Guidance for the Preparation of Standard Operating Procedures (QA-G-6), U.S. EPA, EPA/240/B-01/004, March 2001.
32. U.S. EPA Requirements for Quality Management Plans (QA/R-2), U.S. EPA, EPA/240/B-01/002, March 2001.
33. U.S. EPA Requirements for QA Project Plans (QA/R-5), U.S. EPA, EPA/240/B-01/003, March 2001.
34. Guidance for Quality Assurance Project Plans (QA/G-5), U.S. EPA, EPA/600/R-98/018, February 1998.
35. Users Guide to the U.S. EPA Contract Laboratory Program, U.S. EPA, Sample Management Office, OSWER Directive No. 9240.0-01D, January 1991.
36. Technical Guidance Document: Quality Assurance and Quality Control for Waste Containment Facilities, U.S. EPA, EPA/600/R-93/182, 1993.
37. Risk Assessment Guidance for Superfund - Volume I Human Health Evaluation Manual (Part A), U.S. EPA, EPA/540/1-89/002, December 1989.

38. Risk Assessment Guidance for Superfund - Volume I Human Health Evaluation Manual (Part B, Development of Risk-Based Preliminary Remediation Goals), U.S. EPA, EPA/540/R-92/003, OSWER Publication 9285.7-01 B, December 1991.
39. Risk Assessment Guidance for Superfund - Volume I Human Health Evaluation Manual (Part C - Risk Evaluation of Remedial Alternatives), U.S. EPA, Office of Emergency and Remedial Response, Publication 9285.7-01 C, October, 1991.
40. Risk Assessment Guidance for Superfund - Volume I Human Health Evaluation Manual (Part D - Standardized Planning, Reporting, and Review of Superfund Risk Assessments), U.S. EPA, Office of Emergency and Remedial Response, Publication 9285.7-47, December 2001.
41. Risk Assessment Guidance for Superfund: Volume III - Part A, Process for Conducting Probabilistic Risk Assessment, U.S. EPA, OSWER Publication 9285.7-45, EPA-540-R-02-002, December 2001.
42. Policy for Use of Probabilistic in Risk Assessment at the U.S. Environmental Protection Agency, U.S. EPA, Office of Research and Development, 1997.
43. Human Health Evaluation Manual, Supplemental Guidance: Standard Default Exposure Factors, U.S. EPA, OSWER Directive 9285.6-03, March 25, 1991.
44. Exposure Factors Handbook, Volumes I, II, and III, U.S. EPA, EPA/600/P-95/002Fa,b,c, August 1997.
45. Supplemental Guidance to RAGS: Calculating the Concentration Term, U.S. EPA, OSWER Publication 9285.7-081, May 1992.
46. Revised Interim Soil Lead Guidance for CERCLA Sites and RCRA Corrective Action Facilities, U.S. EPA, OSWER Directive 9355.4-12, EPA/540/F-94/043, July 14, 1994.
47. Clarification to the 1994 Revised Interim Soil Lead Guidance for CERCLA Sites and RCRA Corrective Action Facilities, U.S. EPA, OSWER Directive 9200.4-27, EPA/540/F-98/030, August 1998.
48. Guidance Manual for the Integrated Exposure Uptake Biokinetic (IEUBK) Model for Lead in Children, U.S. EPA, OSWER Publication 9285.7-15-1, February 1994; and associated, Clarifying Short Sheets on IEUBK Model inputs, including but not limited to OSWER9285.7-32 through 34, as listed on the OSWER lead internet site at: <http://www.epa.gov/superfund/lead/products.htm>
49. Integrated Exposure Uptake Biokinetic (IEUBK) Model for Lead in Children, Version 0.99D, NTIS PB94-501517, 1994 or Integrated Exposure Uptake Biokinetic (IEUBK) Model for Lead in Children, Windows© version, 2001.

50. Role of the Baseline Risk Assessment in Superfund Remedy Selection Decisions, U.S. EPA, OSWER Directive 9355.0-30, April 22, 1991.
51. Performance of Risk Assessments in Remedial Investigation /Feasibility Studies (RI/FSS) Conducted by Potentially Responsible Parties (PRPs), OSWER Directive No. 9835.15, August 28, 1990.
52. Supplemental Guidance on Performing Risk Assessments in Remedial Investigation Feasibility Studies (RI/FSS) Conducted by Potentially Responsible Parties (PRPs), OSWER Directive No. 9835.15(a), July 2, 1991.
53. Role of Background in the CERCLA Cleanup Program, U.S. EPA, OSWER 9285.6-07P, April 26, 2002.
54. Soil Screening Guidance: User's Guide, U.S. EPA, OSWER Publication 9355.4-23, July 1996.
55. Soil Screening Guidance: Technical Background Document, U.S. EPA, EPA/540/R95/128, May 1996.
56. Supplemental Guidance for Developing Soil Screening Levels for Superfund Sites (Peer Review Draft), U.S. EPA, OSWER Publication 9355.4-24, March 2001.
57. Ecological Risk Assessment Guidance for Superfund: Process for Designing & Conducting Ecological Risk Assessments, U.S. EPA, OSWER Directive 9285.7-25, EPA-540-R-97-006, February 1997.
58. Guidelines for Ecological Risk Assessment, U.S. EPA, EPA/630/R-95/002F, April 1998.
59. The Role of Screening-Level Risk Assessments and Refining Contaminants of Concern in Baseline Ecological Risk Assessments, U.S. EPA, OSWER Publication 9345.0-14, EPA/540/F-01/014, June 2001.
60. Ecotox Thresholds, U.S. EPA, OSWER Publication 9345.0-12FSI, EPA/540/F-95/038, January 1996.
61. Issuance of Final Guidance: Ecological Risk Assessment and Risk Management Principles for Superfund Sites, U.S. EPA, OSWER Directive 9285.7-28P, October 7, 1999.
62. Guidance for Data Usability in Risk Assessment (Quick Reference Fact Sheet), OSWER 92S5.7-05FS, September, 1990.
63. Guidance for Data Usability in Risk Assessment (Part A), U.S. EPA, Office of Emergency and Remedial Response, Publication 9285.7-09A, April 1992.

64. **Guide for Conducting Treatability Studies Under CERCLA, U.S. EPA, EPA/540/R-92/07ia, October 1992.**
65. **CERCLA Compliance with Other Laws Manual, Two Volumes, U.S. U.S. EPA, Office of Emergency and Remedial Response, OSWER Directive No. 9234.1-01 and -02, EPA/V540/G-89/009, August 1988.**
66. **Guidance on Remedial Actions for Contaminated Ground Water at Superfund Sites, U.S. EPA, Office of Emergency and Remedial Response, (Interim Final), OSWER Directive No. 9283.1-2, EPA/540/G 88/003, December 1988.**
67. **Considerations in Ground- Water Remediation at Superfund Sites and RCRA Facilities -Update, U.S. EPA, OSWER Directive 9283.1-06, May 27, 1992.**
68. **Methods for Monitoring Pump-and-Treat Performance, U.S. EPA, EPA/600/R-94/123, June 1994.**
69. **Pump-and-Treat Ground- Water Remediation A Guide for Decision Makers and Practitioners, U.S. EPA, EPA/625/R-95/005, July 1996.**
70. **Ground- Water Treatment Technology Resource Guide, U.S. EPA, OSWER, EPA-542-B-94/009, September 1994.**
71. **Land Use in the CERCLA Remedy Selection Process, U.S. EPA, OSWER Directive No.9355.7-04, May 25, 1995.**
72. **Reuse Assessments: A Tool To Implement The Superfund Land Use Directive, U.S. EPA, OSWER 9355.7-06P, June 4, 2001.**
73. **Reuse of CERCLA Landfill and Containment Sites, U.S. EPA, OSWER 9375.3-05P, EPA-540-F-99-015, September 1999.**
74. **Reusing Superfund Sites: Commercial Use Where Waste is Left on Site, U.S. EPA, OSWER 9230.0-100, February 2002.**
75. **Covers for Uncontrolled Hazardous Waste Sites, U.S. EPA, EPA/540/2-85/002, 1985.**
76. **Technical Guidance Document: Final Covers on Hazardous Waste Landfills and Surface Impoundments, U.S. EPA, OSWER, EPA/530-SW-89-047, July 1989.**
77. **Engineering Bulletin: Landfill Covers, U.S. EPA, EPA/540/S-93/500, 1993.**
78. **Principles for Managing Contaminated Sediment Risks at Hazardous Waste Sites, U.S. EPA OSWER Directive 9285.6-08, February 12, 2002.**

79. **Institutional Controls: A Site Manager's Guide to Identifying, Evaluating and Selecting Institutional Controls at Superfund and RCRA Corrective Action Cleanups, U.S. EPA, OSWER 9355.0-74FS-P, EPA/540-F-00-005, September 29, 2000.**
80. **Health and Safety Requirements of Employees Employed in Field Activities, U.S. EPA, Office of Emergency and Remedial Response, U.S. EPA Order No. 1440.2, July 12, 1981.**
81. **OSHA Regulations in 29 C.F.R. 1910.120, Federal Register 45654, December 19, 1986.**
82. **Standard Operating Safety Guides, PB92-963414, June 1992.**
83. **Community Involvement in Superfund: A Handbook, U.S. EPA, Office of Emergency and Remedial Response, OSWER Directive No. 9230.0#3B June 1988; and OSWER Directive No. 9230.0-3C, January 1992.**

Beck's Lake Site
South Bend, Indiana
Focused RI/FS ASAOC

Appendix B
Map of Beck's Lake Site
South Bend, Indiana

Becks Lake Site

